



LIBRO WHITE of National Defense

National Defense White Paper

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MESSAGE FROM THE PRESIDENTE OF THE REPUBLIC

It is with satisfaction that my Government presents there Brazilian society el Libro Blanco de Defensa Nacional, hito de transparencia en los asuntos de defensa, already through el nuestros ciudadanos y ciudadanas podrán know the actions of the State in this area, as well as the country's challenges to perfect its Defense in the coming decades.

The civil commitment is indispensable to the construction of a sovereign and democratic Brazil. El Libro Blanco de Defensa Nacional expands the follow-up of military issues by society as a whole, while presenting the potentialities and needs of our Defense for public debate.



The publication of the present book is a step further in the process of consolidating civil leadership and total awareness of defense issues by society. This sums up the creation of the Ministry of Defense and, more recently, the institution of the Estado Mayor Conjunto de Fuerzas Armadas, as a subordinate body, as important moments of institutional advances in the area of Defense. The White Book of National Defense is another fruit of democratic evolution from Brazil.

The expansion of Brazil's international stature in the 21st siglo is now a reality. A fully developed Brazil with an ever-increasing external presence will need adequate deterrent military capacity. Committed to building a more peaceful and prosperous global order, Brazil cannot neglect its Defense.

Brazil has proven, in the last decade, that growth and social inclusion must be mutually reinforcing. We must protect our great riches that, in addition to industries, agriculture, minerals or pre-salt, are composed by millions of Brazilians who have the power to transform themselves into a great nation.

For all the above reasons, Defense will be increasingly present on the national agenda. El Libro Blanco de Defensa Nacional is an invitation to reflection and dialogue. His reading indicates, above all, that Defense and Democracy form a virtuous circle in the new Brazil that we continue to build. By enabling a broad and detailed follow-up of the Defense Policy by the people, this initiative contributes to the maturity of public reflection on the indispensable role of Defense in Brazil in the present and in the future.

Dilma Rousseff

PRESENTATION OF THE MINISTER OF DEFENSE



The Complementary Law 97/1999, modified by the Complementary Law 136/2010, establishes, in its Article, 9th paragraph, the obligation of the Executive Power before 3rd to sit at the National Congress, in the first half of the ordinary legislative session of 2012, the first version of the Libro Blanco de Defensa Nacional.

The Libro Blanco de Defensa Nacional is added to the National Defense Strategy and the National Defense Policy as an enlightening document on the ac Brazil's defense activities.

The expectation is that the Book will be a stimulus to the discussion on the theme of defense in the scope of

Parliament, the federal bureaucracy, the academy and Brazilian society in general. It also serves as a mechanism for providing accounts to society on the adequacy of the existing defense structure today to the objectives that are established by the public authorities.

The Armed Forces have the capacity to project military power beyond the borders. This possibility, by itself, can generate insecurity in neighboring nations. The broad dissemination of the White Book of National Defense and the clear way in which its chapters attempt to express the defense objectives of the Brazilian State constitute measures to build mutual trust. By sharing national perceptions and interests in the field of Defense, Brazil seeks to ensure understanding of the motivations and purposes of the military instrument.

World History records numerous cases of conflicts resulting from communication failures and misperceptions regarding the intentions of children. Therefore, it is important that States use initiatives such as the present one to effectively communicate their intentions, providing transparency to defense policies and reducing the risk of undesirable conflicts.

El Libro Blanco de Defensa Nacional was also prepared with the aim of strengthening cooperation with the countries of South America. It could, in that sense, be an instrument to encourage the installation of a community of peace and security in the South American environment that enables the option for peaceful solutions and the consequent elimination of hypotheses of war. In addition to this effort, we seek to demonstrate to the countries operating in the region that our defense has an essentially dissuasive character and is organized to prevent

Brazil suffers threats. We seek to describe with good foundations that he defends that he cannot delegate and that we must be prepared to fight any aggression.

Today, issues related to the National Defense must involve the whole of Brazilian society. Since the arrival of the National Defense Strategy, the public policies related to it must be defined in an agreed manner. By incorporating in its essence the idea that peace and war decisions are not isolated from popular sovereignty, the White Book allows for the democratic treatment of defense matters. The Defense Policy responds to the interests of society and the State. The effort to create and revise legal documents in the field of national defense, including the Defense White Book, will further strengthen this bond.

The writing of the Libro Blanco constitutes a useful instrument to deepen the understanding that civil leaders have in relation to present and future National Defense. In a period when the global strategic scenario is changing very profoundly and rapidly, the dialogue between the different sectors is increasingly relevant.

The task of preparing the Libro Blanco was not developed within the workshops of the Ministry of Defence. The participation of society in the reflection and debate of the themes developed here has been sought. The realization of Thematic Workshops, Seminars and Round Tables saw the participation of civilians and military personnel, Brazilians and foreigners, and the discussion of Brazilian Defense questions for the five regions of the Country. These contributions have been very valuable and our thanks are recorded to all those who participated in these discussions.

In addition to providing transparency – internal and external – to the criteria for using our Armed Forces, the preparation of this document was relevant to deepen the collection of knowledge of society on military issues.

I hope that this initiative will also serve as an invitation to participate in discussions related to National Defence. Only with a very attentive follow-up of society and with its indispensable contribution, the National Defense Policy will be at the height of the ever stronger, fairer and more democratic country that we want to build.

Celso Amorim

CHAPTER 1



THE BRAZILIAN STATE AND THE NATIONAL DEFENSE

“As a multiethnic country, with great cultural diversity and global interests, Brazil seeks interaction between cultures and respects the plurality of ideologies and political systems.”

President Dilma Rousseff
Brasilia, April 20, 2011

Brazil is a country of continental dimensions. The world's largest Atlantic coast has the y, with almost 191 million inhabitants¹, fifth largest population on the planet². It is a great producer of renewable and non-renewable energy, animal and vegetable protein. It has extensive reserves of potable water, enormous biodiversity and vast mineral resources. The recent discoveries of the pre-salt have led the country to a new level of oil and natural gas reserves and production.

Named by the International Monetary Fund (IMF) as the sixth largest economy, Brazil is del mundo³, reaching increasingly expressive levels of development, seeking to eliminate poverty and reduce social inequalities. Brazilian democracy is consolidated with the realization of free selections, the increasing participation of people in the elaboration and in the demand for public policies, the commitment in the fight against corruption and the respect for human rights.

In recent years, Brazilian foreign policy has projected values and interests along the lines of a global government. Brazil has developed its own external agenda with greater autonomy to define the priorities for its progress as a nation.

This heritage requires defense. Brazil considers itself, and thus is internationally loved, as a peace-loving country, but it cannot do without the military capacity to dissuade it or prepare for the defense against external threats. It cannot be said that at an international level cooperation will always prevail over conflicts.

This chapter will present some elements of the Brazilian State that have an immediate implication in the National Defense.

¹ IBGE — Census carried out in 2010.

² Fondo de Población de las Naciones Unidas — Report on the Situation of World Population 2011.

³ World Economic Outlook. 2012.

Basic Principles of the State

Brazil is a Federative Republic that adopts presidentialism as its system of government. The division of powers - Executive, Legislative and Judicial - is, in the Brazilian legal system, a fundamental and necessary principle for the promotion of the good of the community. For that reason, the division is based on the balance between the three Powers and on their reciprocal and conscious collaboration and control.

The Brazilian Federation is formed by the indissoluble union of the States, the Federal District and the Municipalities. These federative entities have political autonomy and can draw up their own laws, elect their own governors and manage their own resources, according to the division of competences defined by the Federal Constitution.

As a democratic State by right, the country is based on institutional foundations, which are: sovereignty, citizenship, human dignity, social values of work and free initiative and political pluralism.

The values of democracy radiate over all the constituent elements of the Brazilian tado. Among these elements, the dignity of the human person is revealed as the basis of the very existence of the Nation and, in turn, becomes the permanent end of all its activities. The objectives of the State, brought by art. 3rd of the Federal-Constitution, rejecting the country's political option to propose the construction of a free, just and solidary society; the national development guarantee; the eradication of poverty and marginalization; the reduction of social and regional inequalities; and the promotion of everyone's well-being, without discrimination.

On the other hand, in the international sphere, Brazil acts in accordance with the principles cited in art. 4th of the Federal Constitution: national independence, prevalence of human rights, self-determination of peoples, non-intervention, equality between States, defense of peace, peaceful resolution of conflicts, repudiation of terrorism and racism, cooperation between peoples for the progress of humanity and the granting of political asylum.

Brazilian foreign policy considers dialogue and international cooperation to be essential instruments for overcoming obstacles and for rapprochement and strengthening the trust between States. In relation to other countries, Brazil emphasizes its immediate geopolitical environment, consisting of South America, the South Atlantic and the west coast of Africa.

Territory

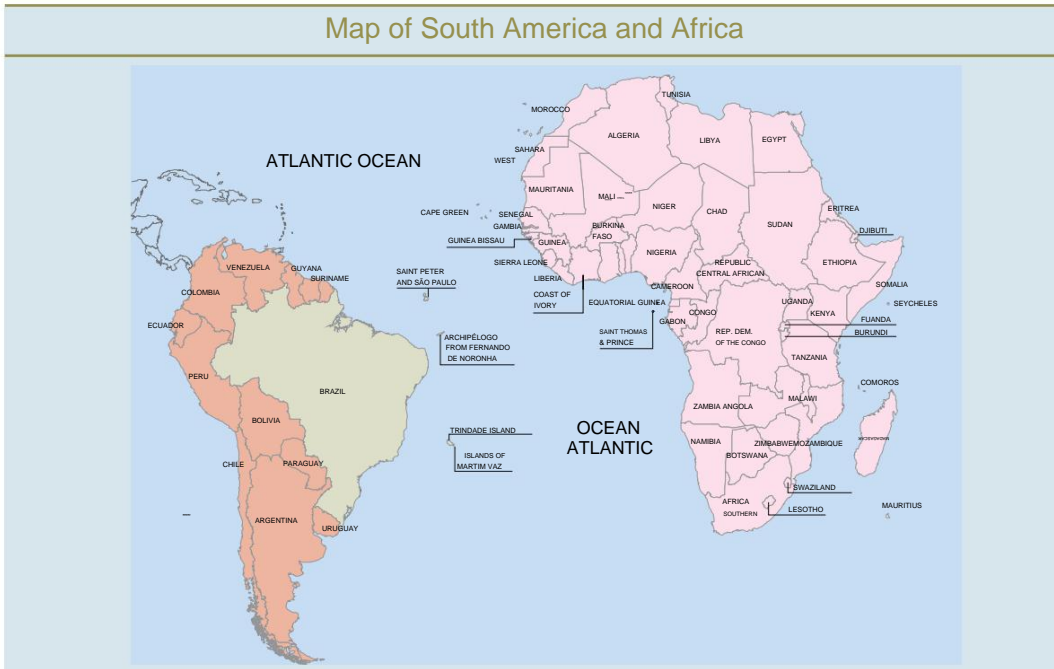
Located in South America, the Brazilian territory has around 8.5 million km² of land area and 4.5 million km² of maritime area.

The country borders 9 Sudamerican countries and an overseas territory of France, which represents a line of 16,900 km in length, of which approximately 12,000 correspond to the frontier of the legal Amazon. The Brazilian coastline extends for around 7,400 km. For the Brazilian maritime area, over the Atlantic Ocean, they cross important navigation routes, vital for the national economy. Allí se sitúan the reserves of the Brazilian pre-salt, of high economic, political and strategic significance.

maritime zone

It is composed of inland waters and maritime spaces, in which Brazil exercises, to some degree, jurisdiction over activities, people, installations, on boats and living and non-living natural resources, found in the liquid mass, in the lake or in the marine subsoil, for control and inspection purposes within the limits of international and national legislation. These maritime zones comprise a fringe of 200 maritime miles (one maritime milla corresponds to 1.85 km).

Map of South America and Africa



Source: IBGE.

The national territory represents more than the vast extension of land over which the State exercises its power. Deep affective roots and feelings of belonging enter the territory.

The definition of borders, by means of treaties and arbitration, was essential for the policy of solidifying diplomatic relations between Brazil and the other countries of South America, which contributed to establishing principles of peaceful solutions in conflicts with other States .

The extensive area that occupies the national territory, cut by the line of Ecuador and the Tropic of Capricorn, comprises a great diversity of climates, vegetation and reliefs. Five large regions with their own characteristics make up the national territory: North, Northeast, Midwest, Southeast and South.



Source: IBGE.

Guaraní and Alter do Chão aquifers (Amazonian)

The Guaraní Acuífer is among the largest underground reserves of fresh water in the world and extends, over 70% of its totality, across the Brazilian territory (840,000 km²). With an underground water reservoir with a minimum capacity of 45,000 km³, it represents an important source of supply for the population and the development of economic activities. The Alter do Chão Water, located under the largest hydrographic basin in the world (the Amazon River), extends under the Brazilian soil with an estimated volume of 86,000 km³.

The North region is equivalent to more than the half of the national territory and is characterized, among other elements, because it has a low population density and a wide border fringe. El Norte is the third most densely populated geographical region, with a population concentrated along the coast, where the main urban centers are located. The Centro-Oeste, the second region with the largest area, also has a low population density. It has a land border line approximately 2,000 km long. The Southeast is the most densely populated, urbanized and developed region of the country, and includes the largest population centers. The South region is the one with the smallest territorial extension. Limited to platinum countries. It also has high rates of urbanization and demographic density.

The Amazon represents one of the focuses of the greatest interest in defense. What is called the Pan-Amazon mine, which is equivalent to the totality of the Amazon in South America, has, in approximate numbers, 40% of the South American area and holds 20% of the world's availability of fresh water. The largest share of Amazonian extension belongs to Brazil, around 70%. Brazil asserts its unconditional sovereignty over the Brazilian Amazon, which has more than 4 million km², is home to mineral reserves of different orders and the greatest biodiversity on the planet. Brazil's cooperation with the other countries that have territory in the Pan-Amazon is essential for the preservation of these natural resources.

It is important to mention the concept of "border fringe"⁴, adopted by Brazil, consolidated by the Federal Constitution of 1988 and regulated by law. Although this concept is mainly related to the National Defence, the concern with the densification and the gradual Brazilian presence along the fringe reflects the priority that is attributed to sustainable development, to the national integration and the cooperation with the bordering countries in aspects related to security and the fight against transnational crimes.

⁴ Federal Constitution, art. 20, § 2: "The fairway up to 50 kilometers wide, off the land borders, designated as border fringe, is considered fundamental for the defense of the national territory, and its occupation and use will be regulated by law."



Source: IBGE.

The Brazilian network of waterways constitutes a determining factor for national integration. El País is home to 12 large river basins, of which four main ones stand out: in the north, the Amazon basin; in the center, in Araguaia-Tocantins and in the São Francisco River; y, al sur, las sub basins de los ríos Paraná, Paraguay y Uruguay, que componen la cuenca del Plata. There is a great potential for articulated actions that facilitate intermodal transport, as a factor of occupation and national integration, with direct reflections for the integration of South America.

The Brazilian coastline has two clear segments: the one that extends from Cape Sao Roque⁵, in the Northeast, to the Chuy Creek, in the South, and the one that goes from Cape Sao Roque to the Oyapoque River, in the North. The first segment links the country physically and economically to the South Atlantic. In this region are located the most populated part of the territory and the main national ports - Santos, Rio de Janeiro, Paranaguá, Recife (Suape), Salvador and Vitória -.

⁵ Cabo de Sao Roque is located in the municipality of Maxaranguape, 51 km from Natal, capital of the Brazilian state of Rio Grande do Norte.

by means of which the majority of Brazilian foreign trade is transported. This maritime segment is vital for the political and economic ties with neighboring countries of the Southern Cone. The projection towards the east leads to the countries of West Africa, where the Cape Route stands out, a considerable strategic route of communication between Asia and Africa with the Northern Hemisphere. The segment that goes from Cabo de Sao Roque to the Oyapoque River projects to Brazil towards the northern part of Africa, towards Western Europe, the Panama Canal, the Caribbean and Central and North America.

If we analyze the maritime segments described and their projections, it is observed that Brazil has a strong link with the sea, with both political and economic aspects, which leads it to exert a natural influence on the South Atlantic. The strong dependence of maritime traffic on foreign trade activities constitutes an important challenge for defense.

The South Atlantic region over which Brazil has territorial rights and other prerogatives of exploitation and control, corresponds to the jurisdictional waters. It has recently received the denomination Amazonia Azul, whose area is equivalent to that of the Brazilian green Amazon. Underneath this region, oil reserves are housed in deep and ultra-deep waters, which are so important for the development of the country. From there arises the need to intensify follow-up measures, monitoring and control of maritime traffic, as well as of incidents in the area of maritime surveillance under the responsibility of Brazil.

population

Brazilian society is the result of the meeting of populations of different geographic and ethnic origins. Since the beginnings of colonization, individuals of Amerindian, European and African origin have mixed, which resulted in a mixed-race population. At the end of the 19th century and the beginning of the 20th century, Brazil received new migratory flows from the most diverse origins. During the 20th century, intense internal migratory movements took place, which accompanied the process of increasing urbanization and industrialization.

These internal migratory movements are associated with socioeconomic factors and policies to encourage occupation of the territory. The economic cycles formed poles of attraction for migrants to different regions. Subsequently, the industrialization process secured the Southeast region as the main destination for the population's displacements. The census carried out in 2010 showed, however, that the intensity of migration towards the Southeast metropolises had decreased, mainly due to the decentralization of industrial activity. Today we can see the emergence of development centers and job offers in different regions. Therefore, a new migratory flow is produced.

Parallel to these migratory flows, the State promoted actions to encourage the occupation of sparsely populated areas, with a view to their integration into the national territory. The so-called "Marcha hacia el Oeste", for example, was a movement created in the first period of the government of President Getúlio Vargas (1930-1945) to motivate the occupation of the Midwest region. Subsequently, the change of the capital of the country constituted a landmark of territorial occupation. The occupation of the territory of the Northern region of Brazil was driven by the extraction of rubber, at the end of the 19th century. The mestizaje, the Lusitanian, indigenous and African heritages, and the harmonious interaction of different cultures were responsible for a unique and original identity.

The official Brazilian language, Portuguese, is one of the main foundations of national identity and a transmission vector of culture and traditions. Music and the arts, literature and sport are elements that also collaborate with the process of forming a national identity. These elements include characteristics, words and local knowledge that contribute to the development of a unique and diverse culture.

Brasilia

In the capital of Brazil are located the headquarters of the Federal Executive Power, the Palacio del Planalto; the seat of the Federal Legislative Power, the National Congress and also the highest court of the Judicial Power, the Federal Supreme Court.

The construction of the city started in 1957, on the Central highlands, to implement a policy already established in the Republican Constitution of 1891, which had as its objective national integration and the development of the interior of the



Palacio del Planalto

country. With an urban project by Lúcio Costa and an architectural project by Oscar Niemeyer, the new capital was inaugurated on April 21, 1960. Due to its architectural value, in 1987, it was declared a cultural heritage of humanity by the National Organization Nations for Education, Science and Culture (UNESCO).

NATIONAL SYMBOLS

According to art. 13 of the Federal Constitution, the four official symbols of the Federative Republic of Brazil are: the National Flag, the National Anthem, the Arms of the Republic and the National Seal. The symbols are graphic and musical manifestations of important historical value, created to convey the feeling of national unity and the sovereignty of the Country.



national flag

After the proclamation of the Republic, on November 15, 1889, a new flag was created to represent the achievements and the historical moment of the country.

Inspired by the imperial flag, designed by the French painter Jean Baptiste Debret, the new *padellón* was designed by Teixeira Mendes and Miguel Lemos, with a sketch by Décio Vilares, and was approved by Decree no. 4, of the provisional government. La nueva *bande ra* mantuvo la tradición del rombo amarillo

In a green field, but I introduce the blue sphere dotted with stars and crossed by a white band, in an oblique direction and descending from left to right, with the words "Orden and Progress". The stars, including the constellation of the Cruz del Sur, represent, each one of them, a Brazilian state. According to Law no 8.421, of May 11, 1982, in the event that a state is believed to be extinguished, it is necessary to update the set.

national anthem

The lyrics of the National Anthem of Brazil were written by the poet and journalist Joaquim Osó rio Duque Estrada (1870-1927) and the melody was composed by the orchestra director and professor Francisco Manuel da Silva (1795-1865). El hi mno está reglamentado por la Ley no 5.700, del 1o de septiembre de 1971.

The Escudo de Armas of the Republic

The Shield of Arms from Brazil was designed by engineer Artur Zauer, on behalf of President Deodoro da Fonseca. It's a shield

of celestial blue, supported by a five-pointed star with a sword at the ready. Nearby there is a corona formed by a branch of fruited coffee and another of flowering tobacco over a glow of gold. The use of the shield is mandatory for the Executive, Legislative and Judicial Powers and for the Armed Forces, and is present in all public buildings.



National Seal

The National Seal of Bra sil is based on the sphere of it National Flag, in which there is a circle with the words "Federative Republic of Brazil". It is used to authenticate government acts, diplomas and certificates issued by official or recognized schools.



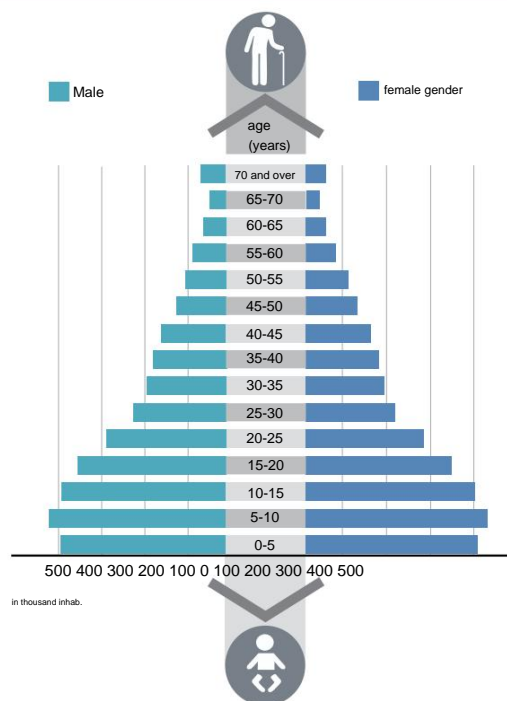
Evolution of the population

The first official census that was carried out in the country, in 1872, recorded approximately 10 million inhabitants. In the 2010 census, according to the Brazilian Institute of Geography and Statistics (IBGE), almost 191 million were accounted for.

The population of Brazil practically doubled over the 20th century, which shows an intense growth rate that I put in the fifth place of the most populous country in the world.

During most of the second half of the 20th century, a time when population growth was most intense, the demographic pyramid was characterized by a large ensanche at the base and a significant narrowing at the top, indicators of an important economically dependent youth population.

Age pyramid of Brazil 1970

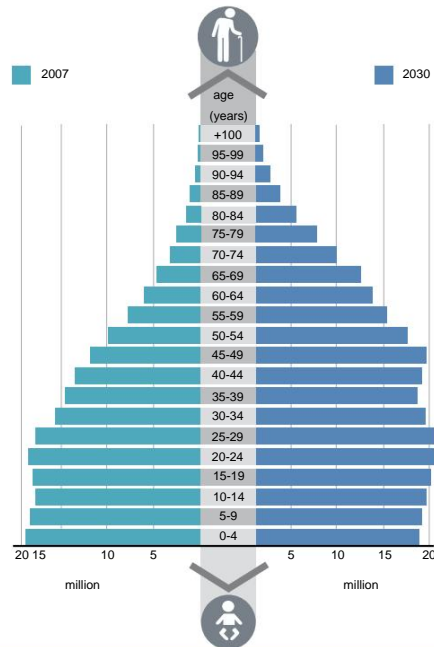


Source: IBGE. 1970 demographic census.

The configuration of the current demographic pyramid means the diminution of this economically dependent blasphemy, which means, in practice, that Brazil is experiencing a moment called “demographic boom” or “window of opportunity”. It is a period of demographic transition in which fertility is already found at lower levels, the population still does not present an expressive aging, the time that a

increase in the economically active capacity of society. Therefore, Brazil finds itself in a privileged situation to respond to exchange opportunities in the international scenario.

Age Pyramid of Brazil 2007 and 2030



Source: IBGE and United Nations.

Teaching is a basic pillar for building a fairer society, rollada y solidaria, en que la ciudadanía puede ejercerse de manera.

In line with the guideline brought in art. 205 of the Federal Constitution⁶, he

The country has significantly invested in educational projects that allow the Brazilian citizen to assume a more critical stance in the face of the challenges of the 21st century.

The situation of education in Brazil has shown improvements in recent decades: hubo a substantial drop in the rate of illiteracy and, at the same time, a regular increase in average schooling and school assistance (schooling)⁷.

The new social, political and economic context of this siglo has shown that the sense of excellence is essential for the development of the country.

6 Art. 205 of the Federal Constitution states that: "Education, a right of all and a duty of the State and of the family, will be promoted with the collaboration of society, seeking support for the full development of the person, his preparation for the exercise de la ciudadanía y su cualificación para el trabajo."

7 IBGE — Synthesis of Social Indicators — 2002 and Ministry of Teaching, School Census 2010.

National Defense

One of the attributions of the State is to provide the necessary security and defense so that society can achieve its objectives. It corresponds to the State to provide and guarantee conditions so that it is considered that the Country is not at risk of external aggression, nor is it exposed to political pressures or unbearable economic impositions, and that it is capable of, freely, dedicating itself to its own development and other progress.

Brazil exercises complete and exclusive sovereignty⁸ over its territory, its territorial sea and the overlying airspace and does not accept any form of external interference in its decisions. The Brazilian State works towards actions that strengthen the rapprochement and trust between the States, since the valorization and exploitation of this perspective represent a contribution to the prevention of conflicts capable of potentiating threats to national security.



Fuerza Aérea en el monitoreo de las fronteras

⁸ Sovereignty is the first foundation cited in art. 1 of the Brazilian Federal Constitution. Sovereignty is inalienable, indivisible and imprescriptible. It must be exercised by the general will and preserve itself on behalf of future generations and the prosperity of the country. It is a supreme order, which must not be submitted to anyone else.



Army in the defense of the Amazon

The National Defense, characterized in the National Defense Policy as “the set of measures and actions of the State, with emphasis on the military expression, for the defense of the territory, of the sovereignty and of the interests against predominantly external, potential or manifest threats”, has as objectives:

- I. Guarantee sovereignty, national heritage and territorial integrity.
- II. Defend the national interests and the people, the benefits and the Brazilian resources on the outside.
- III. Contribute to the preservation of cohesion and national unity.
- IV. Contribute to regional stability.
- V. Contribute to the maintenance of international peace and security.
- SAW. Intensify the projection of Brazil in the concert of the nations and its greatest insertion in international decision-making processes.
- VII. Maintain modern, integrated, trained and balanced Armed Forces, with increasing professionalism, which operate jointly and properly deployed in the national territory.
- VIII. Make Brazilian society aware of the importance of defense issues of the País.

IX. Development of the Defense Industrial Base, oriented towards obtaining autonomy in technologies indispensables.

X. Structure the Armed Forces in terms of capabilities, providing them with personnel and materials compatible with the strategic and operational plans.

XI. Develop the potential of defense logistics and national mobilization.



Navy in the round of the territorial sea

The National Defense Strategy (END), launched in 2008 and revised in 2012, set goals to ensure that the objectives of the National Defense could be achieved. The guidelines established in the END can be used to prepare the Armed Forces with adequate capacities to guarantee the security of the Country, both in times of peace and in crisis situations. The objective of the Strategy is to meet the equipment needs of the Armed Forces, favoring the national domain of advanced technologies and greater technological independence.

An adequate defense structure guarantees greater stability for the Country and, therefore, a propitious environment for the Brazilian State to reach the national objectives presented in the 3rd article of the National Constitution : to build a free, fair and solidary society; guarantee the national development; eradicate poverty and marginalization and reduce social and regional inequalities; and promote the good of all, without prejudice to origin, race, sex, color, age and any other form of discrimination.

In order to achieve the strategic defense objectives, the Brazilian State has defined, in a long-term perspective, the constant goals of the Plan Brazil 2022⁹, prepared by the Strategic Affairs Secretariat:

Goal 1 - Increase the capacity of direction and joint action of the Armed Forces, with an addition of 20% to its personnel and the progressive establishment of a defense assumption that allows equipping and maintaining forces capable of fully fulfilling its attributions constitutional.

Goal 2 - Surveillance and protect the totality of the Brazilian airspace with means of aerospace power compatible with the needs of the National Defense.

Goal 3 - Participate in peace operations and humanitarian actions of interest to the Country, in fulfillment of the mandate of the Organization of the United Nations (UN), with an amplitude compatible with the geopolitical stature of the Country.

Goal 4 - Increase Brazilian naval power to fulfill fully the tasks of controlling maritime areas, denying the use of the sea and projecting power over land.

Goal 5 - Surveillance and protect the Brazilian territory, properly articulating the Terrestrial Fuerza, with special emphasis on the Amazon and the Center-West of the Country.

Goal 6 - Train the teams of the National Defense System and endow it with technological autonomy.

⁹ Plan Brasil 2022 is available at www.sae.gov.br.

CHAPTER 2



BUQUE Sao Paulo Aerodrome

EL AMBIENTE STRATEGIC DEL SIGLO XXI

"If Brazil opens up to the world, the world turns to Brazil. This dynamic is a bearer of hope, but also of new and grandiose responsibilities that the Armed Forces will be able to fulfill."

President Dilma Rousseff
Brasilia, April 5, 2011

The contemporary international system, marked by the exhaustion of the order that characterized the immediate Post Cold War, has been distinguished by the accelerated process of restructuring the power relations between the States. The advent of a multipolar order, which is characterized by the coexistence of traditional powers and emerging powers, brings with it new opportunities and also new challenges for nations, in terms of defense. Despite the fact that dialogue, cooperation, emphasis on multi-lateralism and respect for international law continue to be important and desirable attributes for the international scenario, the recomposition of the system on a multi-type basis is not, by itself, sufficient to guarantee that the non-conflicting relationships between the States prevail in the current transition framework.

In this context, Brazil sees its defense policy and its vocation for dialogue, with essential components for its affirmative and cooperative insertion in the international plan.

Faced with the uncertainty of future scenarios, the cost of Brazil's non-commitment to the construction of the nascent international order could be much greater than the immediate expense, which would be the investment in training, in preparation and in the development of necessary measures for the exercise of sovereignty. The consolidation of multilateral government structures that are representative of the new distribution of world power is an interest of the country that requires close coordination between foreign policy and defense policy, to the extent that the latter offers the other a safeguard, support and logistics, important factors for Brazil's performance on the international stage.

The defense policy determines the state capacity to offer protection to the Brazilian people and to guarantee no external intervention in its territory and in its jurisdictional waters, including in the overlying airspace, in the marine water and in the subsoil.

The sovereignty of the Nation, its competitive economic insertion and its full development presuppose a defense capacity in line with the potentialities and aspirations of the Country.

Despite the increasingly accelerated changes of recent decades, the international order continues to be predominantly determined by the relationship between states.

The defense of Brazil against potential external threats continues to be, therefore, the essential mission of the Armed Forces of the Country.

New themes, or new ways of approaching traditional themes, began to influence the international environment of this siglo. The implications for the protection of our sovereignty, related to the world problem of drugs and related crimes, the protection of biodiversity, biopiracy, cyber defense, tensions resulting from the increasing scarcity of resources, natural disasters, Transnational illicit acts, terrorist acts and the action of armed groups outside the law make explicit the growing transversality of security and defense issues. Before them, Brazil recognizes – in respect to the provisions of the Constitution – the need for coordinated policies between different organs of the government.

Other challenges facing the country are related to its ability to face the so-called “conflicts of the future”, namely, information wars and small-scale conflicts characterized by an imprecise origin and by command and Diffuse controls, which operate with the use of social networks.

What matters is strengthening the country's capacity for international commitment. Frank and open dialogue should contribute to foreign policy and to its interaction with defense policy, through the construction of consensus that encourage collective and broad internal debate. The interest that has been awakened in recent years by defense issues in growing segments of Brazilian society is a healthy trend. The effective participation of different social sectors in the national debate on defense enables a greater understanding of these questions.

An international scenario characterized by uncertainties exerts a direct influence, both on the definition of foreign policy and on its defense policy. The phenomenon of globalization has brought with it the aggravation of threats of different natures, such as drug trafficking, arms trafficking and maritime piracy, which jeopardize the capacity of the State. The worsening of the international financial and economic crisis also signals a possible deterioration of social, energy and environmental conditions, with obvious consequences for peace and security in the world.

Brazil works towards building a participatory and inclusive global community. It strives, for that, to promote a “cooperative multipolarity”, an expression that summarizes the country's perception that a multipolar power structure is consolidating in the world. In this strategic environment, international action must prioritize the consolidation of governance mechanisms that are most representative of the

new international reality, aimed at world peace and security and towards the well-being of humanity. The new power architecture of the 21st century must not favor conflicting and excluding postures, inherited from international orders that will predominate throughout the 21st century.

That political option, however, cannot be negligent with the complexity of the threats that arose in the Post Cold War period nor with the uncertainties of those that are reviewed on the horizon in the medium and long term. The country has been preparing for these realities since the reformulation of the National Defense Policy, in 2005, and the launch of the National Defense Strategy, in 2008, both revised in 2012.

In South America, there is a clear trend towards cooperation in terms of defense. This trend has been constantly reinforced since the creation of the Union of South American Nations (UNASUR) and especially its Consejo de Defensa (CDS). We see the emergence in South America of a “community of security”¹⁰, motivated by the fact that neighboring countries share common historical experiences, similar development challenges and democratic regimes, which facilitate reciprocal understanding and favor a peaceful accommodation of the various interests nationals.

In summary, the Brazilian defense policy combines cooperative and dissuasive components. International crises can arise independently of the desires of the country, which requires an adequate level of readiness and modernization of the Armed Forces. On the other hand, on the global level, Brazil must have a defense capacity that corresponds to its economic, political and strategic stature, in such a way that its resources can be preserved, its word heard, its position respected and safeguarded your peaceful posture.

Contextualization of the strategic environment

In the composition of the contemporary international poles of power coexist elements of unipolarity, such as the North American military preponderance; of bipolarity, such as the economic interdependence between the United States of America and China; and multipolarity, such as the financial G-20, the commercial G-20, the BRICS group, the IBSA Forum and the BASIC11 group,

¹⁰ Concept presented by Karl W. Deutsch towards the end of the 1950s in his classic work Political Community and the North Atlantic Area - International Organization in the Light of Historical Experience. According to Deutsch, a community of security would emerge in relations between States of the same region as the war became something unthinkable for the solution of disputes between their members.

¹¹ financial G-20 - Group composed by: Germany, Canada, United States, France, Italy, Japan, United Kingdom and Russia, which form the G-8, and also Brazil, Argentina, Mexico, China, India, Australia, Indonesia, Saudi Arabia, South Africa, South Korea, Turkey and the European Union.

Commercial G-20 - Group made up of 23 countries from three continents: South Africa, Argentina, Bolivia, Brazil, Chile, China,

in addition to others. Recent and traditional structures of local government co-exist, in which new forums of political concertation have gained an importance similar to that of others that were consolidated according to a bipolar and excluding logic over the course of the 20th century.

In the context of the strategic environment of this siglo can be characterized scenic guns:

- a) Unipolarity: expresses the preponderance of a hegemonic actor over the international system. Although the reaffirmation of unipolarity should not be discarded, it is unlikely that in the face of the structural crisis in the developing world and the growing presence of new actors, some power will be able to manage phenomena with global implications in isolation.
- b) The power condominium: in this scenario, competition and coordination between the two or few poles of power would limit the action of all the other actors in the system. From the strategic point of view it seems improbable that a power condominium, similar to the one that characterized the 20th century, will once again govern the international system in the next few decades.
- c) The multipolarity: represents the power structure that will probably characterize the strategic environment in the coming decades. The multipolar structure expresses the coexistence of different poles of power interacting in the international system, in which each one influences the action of the other. The balance of power makes it difficult for dominant forces to exert hegemonic influence.

In multipolarity, it is natural that dynamics of conflict and cooperation coexist in the relationship between States. The nature of multipolarity, however, will determine the prevalence of one or another form of interaction.

The predominance of conflict over cooperation would lead to a strategic environment of weakening multilateral coordination mechanisms. It is a scenario that must be avoided. The prevalence of cooperation over conflict will favor the strengthening of multilateral forums.

In this new global distribution of power, Brazil must contribute with its actions and positions so that there is a multipolarity of a cooperative nature that matches its historic defense of the normative integrity of the international system.

Cuba, Egypt, Ecuador, Philippines, Guatemala, India, Indonesia, Mexico, Nigeria, Pakistan, Peru, Paraguay, Thailand, Tanzania, Uruguay, Venezuela and Zimbabwe.
BRICS - Group formed by Brazil, Russia, India, China and South Africa.
IBAS - Group formed by India, Brazil and South Africa.
BASIC - Group formed by Brazil, South Africa, India and China.
Details on the creation and objectives of these groups can be seen in the Glossary.

The international system

Brazil works to ensure that multilateral consultation forums, especially those that integrate the United Nations, are more representative of the world reality of the 21st century. The effectiveness and legitimacy of the decisions and the policies adopted by its bodies will be as much greater as the capacity of the UN to express the interests of the countries that comprise it is greater. The country's plea regarding the comprehensive reform of the United Nations Security Council, in particular, responds to this inclusive project that has motivated Brazilian foreign policy for decades.

An important trend since the 1990s has been the “securitization” of the themes of the United Nations. This trend, driven above all by permanent members, consists of bringing to the Security Council issues that, by their very nature, should be dealt with by other instances of the UN and its specialized bodies. The “securitization” has to be viewed with caution. Under the mandate of specialized organizations and agencies, such as the International Atomic Energy Agency (IAEA), the Organization for the Prohibition of Chemical Weapons (OPCW) and the political bodies of treaties such as the Convention for the Prohibition of Biological Weapons (CPAB), the possibility of submitting a case to the Security Council must be limited to extremely serious situations.

As far as the UN Security Council is concerned, no significant advances have been observed that reflect a trend towards strengthening multilateralism, in the same way as they are already being observed in other spheres, such as economics and finance. To ensure the legitimacy and representativeness of the Council in terms of questions related to international peace and security, its reform has become an outstanding necessity.

The valorization of multilateralism is also a consequence of the prominence that has gained by raising certain questions that demand solutions negotiated between nations and that also have an impact on the security of countries, such as climate change, sustainable development and social inclusion. The notion that security and development are integrated refers to the ideals themselves inscribed in the Charter of the United Nations.

Alongside the diplomatic initiatives in which Brazil has actively participated for the peaceful solution of conflicts and the reduction of tensions, on the American continent the *fuera de él*, the most evident expression of the growing importance of Brazil in the area of peace and security have been your participation in peacekeeping operations. These operations are one of the main instruments at the disposal of the international community to deal with the threats of conflict, as well as how to prevent countries in post-conflict situations from resurgence of armed violence. on the side of them

UN agencies, funds and programs, peace missions are an important facet of the Organization, as they represent the main form of legal and legitimate military action by the international community to guarantee collective security.

The three pillars of peacekeeping operations are: the use of force alone in the case of self-defense or in defense of the mandate granted by the UN Security Council, impartiality and the consent of the States to que ocurren las operaciones.

As the name suggests, the peace missions of the UN are instruments through which the Organization helps to preserve the peace that is threatened or that has been restored after a conflict, which does not constitute a form of intervention in a military conflict in favor of one side or the other.

Brazil understands that the limits are clear: peace missions cannot replace the parts of a conflict. The UN will help sustain the peace that the parties have managed to build, and must do so in a strictly impartial manner, so that it maintains its legitimacy and expands its political value. The peace missions of the UN offer the parties both a political and security environment, as well as the time they need to lay the foundations of a lasting peace.

The missions currently face important challenges. It is fundamental, to guarantee its sustainability and the success of its actions, the availability of resources and military means for the fulfillment of its mandates. You have to incorporate, in your actions, the commitment to the sustainability of your efforts, it is decided, you must help create the political, institutional and socio-economic bases of a lasting peace. A challenge of particular importance is the protection of civilians in conflict situations, whose conceptual definition will have to be perfected so that the use of force does not exceed what is foreseen by the Security Council of the United Nations.

In September 2011, during the opening speech of the General Assembly of the UN, President Dilma Rousseff coined the expression “responsibility to protect”, whose essence is translated into a doctrine applicable to the use of military force under the shield of the UN: “do not create more instability than what is being tried to avoid limiting”.

Brazil has defended that peacekeeping operations should be based on four elements: security, institutional strengthening, national reconciliation and development. The balance between these elements is one of the Brazilian priorities, both in the conceptual debate, which results in the elaboration of the UN guidelines on the subject, and in the performance of the Brazilian forces in these missions.

The Brazilian performance in peace missions has been distinguished, whenever possible, by the commitment to the reconstruction of countries on socially and economically sustainable bases. Therefore, efforts are being made, especially in the case of Haiti, to promote innovative technical cooperation programs in areas such as food security, agriculture, professional training, health, security and infrastructure. Brazil tends, likewise, to increase the participation of civilian professionals in missions, in order to meet the growing demands for qualified personnel in the areas of public security, border control, combating drug trafficking, electoral systems, correctional systems and public administration, among others.

regional systems

South American integration remains a strategic objective of Brazilian foreign policy, so that the country recognizes that the condensation of political, social and economic relations between the South American countries constitutes a fundamental element for the socioeconomic development and for the preservation of the peace in the region. Likewise, the consolidation of a South American market and the strengthening of the capacity to act and negotiate by governments in international forums depend on the continuity of the initiative and the strengthening of friendly relations between the countries of the region.

The South American region is the one that has presented a lower incidence of conflicts between States. A peaceful regional environment has contributed, mainly in the last decade, to the economic growth of South America. The conciliatory posture of Brazil, which has lived in peace with its neighbors for over 140 years, has historically contributed to the stabilization of the region. There is a need to value and preserve this legacy. The stability and prosperity of the Brazilian environment refute the security of the country and have positive effects on all the countries of South America.

The degree of instability of the region in which it is located affects the security of a country. Therefore, regional stability is a national objective. Brazil considers it desirable that consensus, political harmony and the convergence of actions between the South American countries prevail. This will make the region more united and stronger. This set of factors impels the country to strengthen cooperation with the neighboring states, also in the military area, with a view to constituting a blockade that is fully present at a global level in dealing with defense issues, with the capacity to dissuade external intrusions and with reinforced negotiating power in international forums.

Relevance, from this perspective, is the consolidation of the Union of Sudame Rican Nations (UNASUR), which has proved to be an instrument for the peaceful solution of regional controversies, for the protection of democracy in South America, for the strengthening of Dialogue between the Member States and for the progressive formation of a South American defense industrial base.

Within the institutional frameworks of UNASUR has a high strategic value the strong teaching of the Consejo de Defensa Sudamericano (CDS), formally established on December 16, 2008 by decision of the Heads of State of the Member Countries. The CDS have, among their general objectives:

- The consolidation of South America as a peace zone, the basis for democratic stability and the integral development of the towns and contribution to world peace.
- The construction of a South American identity in terms of defense, which takes into account the subregional and national characteristics (platinum, dynamic, Amazonian, Atlantic, Caribbean and Pacific) and which contributes to strengthening the unity of the unit of Latin America and the Caribbean.
- The generation of consensus to strengthen regional cooperation on issues of defense.

The CDS will tend to promote, therefore, the joint analysis of policies and strategies, giving opportunity to a broader debate of the global and hemispheric realities, from the perspective of South America.

It is important to point out that there are other forums at the regional and subregional levels that complement the South American Defense Council, such as the meetings of Chiefs of the Mayors and Commanders of the Armed Forces; the Inter-American Defense Board; the Commission for Hemispheric Security; the Conference of Defense Ministers of the Americas; the Conference of the American Armies; the Interamerican Naval Conference; y el Sistema de Cooperación entre las Fuerzas Aéreas Americanas.

The South Atlantic

Brazil, the country with the largest Atlantic coast in the world, has, for all the aforementioned reasons, a special interest in peace and security in the South Atlantic. This ocean has relevant strategic areas, such as the “Atlantic Throat”, between the northeast coast of Brazil and West Africa, a space of vital importance for world trade. The passages from the south, which connect the Atlantic to the Pacific, constitute an alternative route to the Panama Canal, mainly for large-sized vessels. The Buena Esperanza cable route, which connects the South Atlantic to the Indian Ocean, is an alternative to the canal

from Suez and also offers the best maritime access to Antarctica. It is worth emphasizing the significant importance of the vast oil basin that exists on the Brazilian continental shelf, in addition to the routes for importing oil from countries on the equatorial fringe of the Atlantic.

The strategic maritime areas of greatest priority and importance for Brazil are represented by the Brazilian jurisdictional waters (AJB), which include the territorial sea (MT), the contiguous zone (ZC), the exclusive economic zone (EEZ) and the continental shelf (PC), as well as the region comprising the 16th parallel north, the west coast of Africa, Antarctica, the east of South America and the east of the Lesser Antilles.

Brazil also devotes, together with its West African neighbors, special attention to the construction of a cooperative environment in the South Atlantic, under the shield of the South Atlantic Cooperation and Peace Zone (ZOPACAS). Created in 1986 by the United Nations, ZOPACAS currently has 24 members: South Africa, Angola, Argentina, Benin, Brazil, Cape Verde, Cameroon, Congo, Ivory Coast, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Guinea Ecuatorial, Liberia, Namibia, Nigeria, Democratic Republic of Congo, Santo Tomé and Príncipe, Sierra Leona, Togo and Uruguay. In diplomatic terms, the ZOPACAS refuerzo is important for the defense of the country.

El Atlántico Sur has a historical identity and strategic characteristics of its own. Resolution No. 41/11 of the General Assembly of the United Nations encourages and calls for militarily significant states in other regions not to introduce naked weapons or other weapons of mass destruction in the South Atlantic. It is necessary to reduce its military presence in this ocean and, in the future, eliminate it. The conflicts and rivalries that exist in the South Atlantic cannot be projected on it by States that are in other zones.

In order to renew its involvement with these multilateral precepts, Brazil wishes to contribute responsibly and in collaboration with ZOPACAS allies to take advantage of the socioeconomic development potential of the South Atlantic region.

International treaties and regimes have repercussions on the defense

Brazil has a solid tradition of peaceful dispute resolution and a miso commitment to Institutional Law. The first Brazilian Republican Constitution (1891) prohibited war of conquest and, since its debut in the global forum, at the Second Peace Conference in La Hague (1907), the country advocates legal equality between states, rejecting treaties and discriminatory agreements.

The country's territorial disputes were resolved by diplomatic negotiations and international arbitrations that consolidated the borders with its 10 neighbors. In this way, Brazil anticipated the principles that motivated the creation of the Liga de las Naciones (1919) and the Organización de las Naciones Unidas (1945).

The Charter of the United Nations declares in art. 22, that “the Organization is based on the principle of sovereign equality of all its members”.

International Disarm and Non-Proliferation Regimes

Brazil, in the light of the constitutional principles that govern its international relations, is guided by proactive participation in negotiations that involve the themes of disarmament, non-proliferation and arms control. Based on unquestionable security needs dictated by the strategic defense political scenario, it is understood that realistic and credible measures to reduce or eliminate armaments and transparent verification processes can be adopted multilaterally, providing an environment of mutual trust between States sovereigns.

Having a specific representation at the Disarm Conference in Geneva, Brazil defends the strengthening of this Conference as the only multilateral instance negotiator in the disarmament area. The country has assigned the highest priority to the elimination of nuclear weapons in this forum, through the adoption of a series of complementary measures, on the bilateral, regional and multilateral levels, which should result in the adoption of a convention on disarmament nuclear. Among other steps, it supports the negotiation of a treaty on the prohibition of the production of fisible material for explosive purposes, which includes the question of existing stocks, so that the instrument will reflect on significant measures towards the direction of disarming nuclear.

Since the beginning of the 1990s, Brazil has participated, with personnel, in the demining campaigns of the Comprehensive Action Program against Antipersonnel Mines in the Americas and Africa, with significant results in terms of the number of mines deactivated and the areas exploited. Likewise, it has acted in favor of discussions related to the prevention of the arms race in outer space, defending the adoption of a legally relevant international instrument in this matter.

With regard to conventional armament, Brazil forms part of the Convention on Prohibitions or Restrictions on Employment of Certain Conventional Weapons that

they can be considered excessively harmful or generating indiscriminate effects, better known as Convention on Ciertas Armas Convencionales. Brazil reiterates its commitment to the following humanitarian positions:

- Prohibition of the use of weapons with fragments not detectable by X-rays in the body human.
- Prohibition or restriction on the use of anti-personnel mines, traps and others devices.
- Prohibition of the use of laser weapons designed to cause blindness.
- Assumption of responsibility and obligations regarding explosive remnants of war.

In addition to this, Brazil is a signatory of the Convention for the Prohibition of Biological and Toxic Weapons and their Destruction, which prohibits the development, production and staging of these weapons. It is also part of the Convention for the Prohibition of Chemical Weapons and their Destruction (CPAQ), which also prohibits their development, production, acquisition, storage, retention, transfer and use.

The Nuclear Non-Proliferation Treaty

Brazil understands that security, peace and development are indissociable dimensions of the cause of non-proliferation of weapons of mass destruction and disarm. This is a field marked by strong stratification, illustrated by the differentiation made by the Nuclear Non-Proliferation Treaty (NPT)¹² between states that possess nuclear weapons and states that do not. Possession of weapons of mass destruction (nuclear, above all) and its launch vehicles (long-range missiles), as well as participation in agreements based on the possibility of employment, however ultimately, of these weapons, continues to be a crucial factor in international relations, with direct implications for defense and security.

The existence of nuclear-armed countries, on the ground de jure, but de facto¹³, constitutes a threat to the regime of the NPT. At present, some of the states known to have nuclear weapons are not party to the Treaty. Las señales de acomodación al status de facto

¹² The NPT was signed on July 1, 1968 and entered into force internationally on March 5, 1970. Brazil adhered to the Treaty on September 18, 1998 and was promulgated by Decree No. 2,864 of December 7, 1998. The Decree Legislative No. 65 of July 2, 1998, which approved the text of the NPT with a view to the adhesion of the Brazilian Government, highlighted in its article 2 that "The adhesion of Brazil to the present treaty is bound by the understanding that, in the terms of the Article VI, effective measures will be taken to seek the end at a close close to the nuclear armaments career with the total elimination of all atomic weapons".

¹³ The Latin expressions de jure and de facto are being used as ideas that contrapose and mean, respectively, "by the law" and "by the way".

of these countries, above all of some de jure nuclear-armed States, represent a destabilizing element of the regime.

This factor is chronically disrupted in the fulfillment of obligations related to the three pillars of the NPT (non-proliferation, disarm and the right to peaceful uses of nuclear energy), with disproportionate emphasis on the first.

The provisions for the nuclear disarmament provided for in article VI of the TNP were not implemented. The arsenals of de jure nuclear-armed states were not eliminated. Failure to comply with Article VI perpetuates the imbalance of the NPT.

Los Trece Pasos para el Disarme Nuclear – VI Conference of NPT exam

1. Sign the Treaty for the Complete Prohibition of Nuclear Tests (CTBT – acronym in English).
2. Terminate with nuclear tests.
3. Negotiate a Treaty on the Prohibition of the Production of Fisible Materials (FMCT – acronym in English).
4. Establish at the Conference on Disarm a subsidiary body for nuclear disarm.
5. Apply the principle of irreversibility to the disarming measures.
6. Eliminate the atomic arsenals.
7. Reinforce existing treaties (including START II and III treaties; Strategic Offensive Weapons Reduction Treaty and ABM Treaty, Treaty on Limitation of Ballistic Anti-Misile Systems).
8. Implement and finalize the trilateral initiative between the USA, Russia and the IAEA for protection of nuclear material.
9. Implement the adoption of measures to achieve nuclear disarmament.
10. Submit the excess of fissible material for military purposes to the IAEA.
11. Reaffirm total disarm, under effective international control as an objective paramount in the States.
12. Prepare regular reports on the implementation of obligations that it appears in article VI of the TNP.
13. Develop capabilities for verifying compliance with agreements on nuclear disarmament.

The VI Conference of the TNP14 Examination, which took place in 2000, was marked by the commitment of the five nuclear powers recognized by the treaty with the complete elimination of their atomic arsenals. At that meeting, the nuclear States agreed with the Three Practical Steps for Nuclear Disarmament, which consist of systematic and progressive efforts for the implementation of Article VI of the NPT.

Little has been accomplished over the course of more than a decade. Numerical reductions in nuclear arsenals do not mean, in a general way, the reduction in the prominence of these weapons in strategic doctrines.

The progressive accommodation of the de facto nuclear-armed States and the persistence of doctrines and alliances based on the hypothesis of the use of a nuclear weapon seem to point towards a growing questioning of the order that seeks the NPT and of a new international division based on three categories of States: i) Those that possess nuclear weapons de jure or de facto; ii) those who do not possess nuclear weapons, but who benefit from their protection under the “nuclear parasols”; and iii) those who genuinely can be called non-nuclear armed.

For this last category of States, including Brazil, the difficult access to nuclear technology for peaceful purposes, provided for in Article IV of the NPT, and the reiteration or formulation of new military doctrines that prevent the use of nuclear weapons on the ground against exclusively nuclear threats, but also against diffuse threats, including those related to conventional weapons or non-state agents.

The ambiguity of the so-called “negative security guarantees”, conferred by nuclear-armed States, aggravates the already worrying expansion of the spectrum of threats that nuclear weapons are supposed to dissuade. The nuclear-armed States refuse to give non-nuclear-armed States security guarantees that are unequivocal, unconditional and backed by a legally binding international instrument.

Among the goals set in Brazil, the following points stand out:

- The non-proliferation and the disarming are interrelated processes that are refuerzan much yours.

¹⁴ Article VIII of the NPT determines that “five years after this Treaty comes into force, a Conference of the Parties will be held in Geneva, Switzerland, to evaluate the implementation of the Treaty, with the aim of ensuring that the purposes of the Preamble and the provisions of the Treaty are being implemented. From then on, at intervals of five years, the majority of the Parties to the Treaty will be able to obtain, presenting them a proposal with that purpose to the depositary Governments, the convening of other Conferences with the same objective of evaluating the implementation of the Treaty. The first NPT Examination Conference was held in 1975. During the VIII NPT Examination Conference, which took place in May 2010, a new Plan of Action was adopted, with 64 steps that the States that formed part of the TNP should respect in areas of non-proliferation, disarmament and uses of nuclear energy, prioritizing nuclear disarmament. In 2015, the IX Conference of Examen will take place.

- The reversal of the asymmetries inherent in the NPT and the effective prevention of the risk of a nuclear war can only occur through the total elimination of nuclear weapons.
- Efforts in terms of disarming and non-proliferation should not be conducted in accordance with the right of use, development and investigation in the field of sensible technologies for peaceful purposes.

Brazil has consolidated credentials in the non-proliferation area. The Federal Constitution vetoes the use of nuclear energy for non-peaceful purposes. The arrangement is made by the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC) without precedent and the Brazilian Nuclear Program belongs to international organizations that carry out their activities of control, accounting and application of safeguards independently.

Brazilian-Argentine Accounting and Control Agency Nuclear Materials (ABACC)

The ABACC is an independent international organization created by the governments of Brazil and Argentina, which is responsible for verifying the peaceful use of nuclear materials that can be used directly or indirectly in the manufacture of nuclear weapons.

The ABACC was instituted by the Agreement for the Exclusively Pacific Use of Nuclear Energy, signed in 1991 between Argentina and Brazil. By means of this agreement, the Common System of Control of Nuclear Materials (SCCC) was established, which administers ABACC.

Since June 2011, the Tripartite Agreement signed by Brazil, Argentina, the ABACC and the International Atomic Energy Agency (IAEA) has been recognized by the Nuclear Suppliers Group (Nuclear Suppliers Group – NSG) as an agreement that gives, in terms political, guarantees equivalent to the additional protocol to the safeguard agreements of the IAEA.

In addition to the NPT, Brazil forms part of the Treaty of Tlatelolco¹⁵, the first instrument that establishes a zone free of nuclear weapons in a densely populated region. In a joint statement in January 2011, Brazil and Argentina highlighted the high degree of interest

¹⁵ The Treaty of Tlatelolco is the name conventionally given to the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, signed on February 14, 1967 in Mexico City. The treaty entered into force on April 25, 1969 and was signed and ratified by the 33 nations of Latin America and the Caribbean. Brazil signed it in 1967 and incorporated it into the country's legal system in its entirety by Decree No. 1,246/1994. With the treaty, the States agreed to prohibit and prevent "testing, use, manufacture, production or acquisition by any way of any nuclear weapon", in addition to "receiving, storing, installing, transporting or transporting any form of possession of any nuclear weapon".

gratitude that both countries have achieved in terms of bilateral nuclear cooperation through significant projects within the framework of the Binational Commission of Nuclear Energy (COBEN). They also ratified, in all its terms, the Joint Presidential Declaration on Nuclear Policy, signed in San Juan, Argentina, in August 2010, and stimulated the political dialogue established by the Permanent Committee on Nuclear Policy (CPPN). The purpose of this forum was to continue the exchange of information on the state of the nuclear programs of both countries and also on the coordination of positions in international forums, such as the Group of Nuclear Providers, among others, in addition to the political evaluation of the bilateral nuclear cooperation and the operation of ABACC.

Brazil's international action in this area seeks to reinforce national independence and ensure that international norms against the proliferation of weapons of mass destruction are not incompatible with autonomous technological capacity, even in strategic sectors such as nuclear power.

International regimes of the sea, Antarctica and outer space

Unlike land borders that have limits and physical references for their marking, at sea there are no lines that allow the establishment of borders in a visible way, which requires the adoption of conventions that have been accepted by the international community.

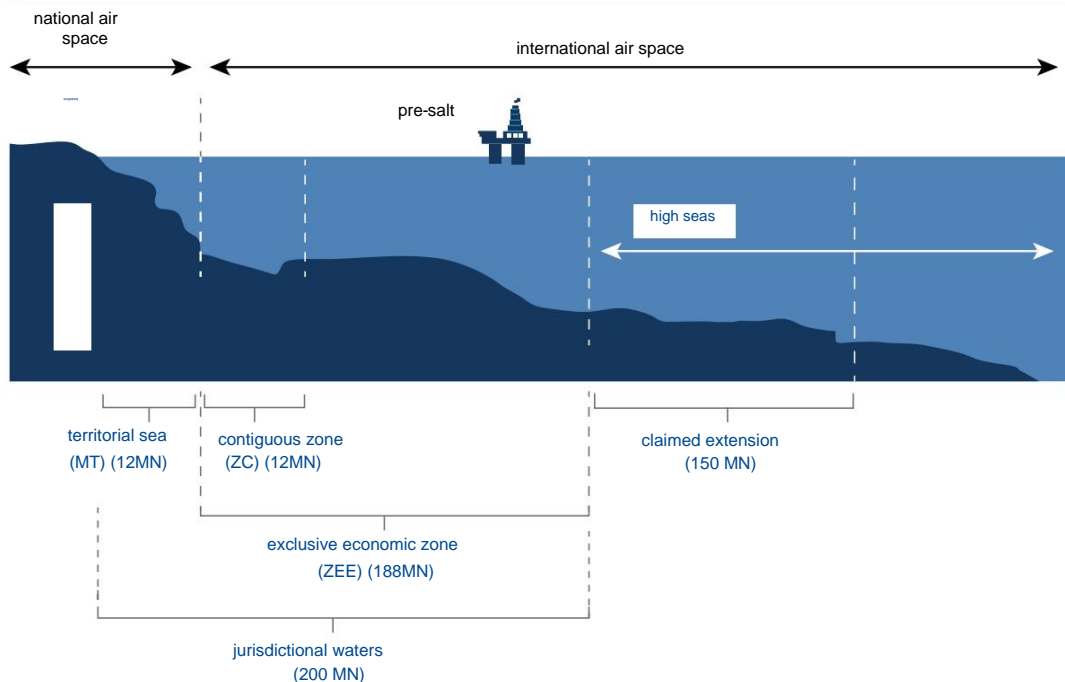
In 1982, the United Nations Convention on the Right of the Sea was held (UNCLOS), whose resolutions Brazil ratified. In the resolutions of the UNCLOS, important concepts were tabled for the regulation of the limits in the sea, which are: a territorial sea (MT), in which the State exercises full sovereignty, including its overlying air space; a contiguous zone (ZC), within which the coastal State can take customs and sanitary inspection measures at sea, and also repress infractions to the laws and the regulations that are committed in the territory or in the territorial sea; and an exclusive economic zone (EEZ), in which the State has sovereign rights for the purposes of exploitation and use, conservation and management of natural resources, living or non-living. From the baseline from where the MT originates, up to the external limit of the EEZ, the coastal State exercises rights over a fringe of 200 nautical miles (370 km), which are called "jurisdictional waters", in which Sovereignty is exercised in different degrees.

The UNCLOS is ratified by 152 countries. However, there are still countries that have not joined, including great powers. This item could become a source of conflict in the future.

Convention of the United Nations on the Right of the Sea (UNCLOS)

The UNCLOS established a territorial sea (MT) of 12 nautical miles (22 km), calculated from a base line on the continent; a contiguous zone (ZC), adya center to MT, which extends from 12 to 24 nautical miles; and an exclusive economic zone (EEZ), which is a fringe of 188 nautical miles, adjacent to the territorial sea (including the ZC). The Convention, UNCLOS, also established that the States will be able to claim for the increase of their EEZ, if they are required to fulfill certain technical criteria up to a maximum extension of 350 nautical miles (648 km). Internally, in 1993, Brazil adopted the UNCLOS resolutions from 1982 to 1988, but only in 1994, with the ratification of the 60th country, UNCLOS entered into force.

Limits Determined by UNCLOS



Limits of the continental shelf
(1 MN = 1.85 km)

At sea, the Brazilian EEZ, whose outer limit is 200 nautical miles, has an approximate oceanic area of 3.54 million km². The area under consideration, if it adds up to more than 960 thousand km² of continental shelf (PC), located more allá than 200 thousand

and claimed by the UN Continental Shelf Limits Committee, totaling approximately 4.5 million km². This extensive oceanic area delimits what is called the “Blue Amazon”, which is adjacent to the continent and corresponds to approximately 52% of the Brazilian continental area.



Characterization of the Blue Amazon

The archipelagos of Fernando de Noronha, Sao Pedro and Sao Paulo and the island of Trindade, isolated from the coast, are also taken as a reference for the composition of the Blue Amazon, with an extension of 200 nautical miles, counted from its baselines and circumscribed in their respective surroundings.

In the archipelago of Sao Pedro and Sao Paulo, located 520 nautical miles off the coast of the state of Rio Grande do Norte, Brazil maintains a scientific research station, supported by the Navy and permanently manned and inhabited by Brazilian researchers, which is a prerequisite for the archipelago to contribute to the composition of the Blue Amazon.

The growing interest of countries in Antarctica, reinforced by the claim of territorial sovereignty by some, motivated the Washington conference in 1959, which discussed the future of the continent and an appropriate legal regime for the solution of the impasses that arose.

Winds from the Antarctic region affect a significant part of the Brazilian coast and the current marinas bring living resources, nutrients and oxygen to the coast of Brazil, factors that directly influence the coast of its southern region. A large part of the fish available on the Brazilian coast suffers the influence of the masses of water that come from the southern ocean. Therefore, due to the important interest that this region represents for the country, the Brazilian Antártico Program (PROANTAR) was approved in January 1982. In that same year, Brazil acquired for the Armada the oceanographic support package "Barão de Teffé", which was entrusted with carrying out a hydrographic, oceanographic and meteorological reconnaissance in Antarctica, in addition to selecting the place where a future Brazilian station would be installed. This divine initiative in re international presence of the country on that continent, which allowed Brazil to be accepted in 1983 as a consultative part of the Antártida Treaty¹⁶.

The international regime of outer space is of paramount importance for the country. Its main instrument is the Committee for the Pacific Use of Outer Space (COPUOS), created in 1958, just after the launch of the first artificial satellite, Sputnik-1. The General Assembly of the UN then established an ad hoc Committee for the Pacific Use of Outer Space, composed of 24 member states, including Brazil. Currently, the committee is made up of 71 member states. COPUOS oversees the implementation of five treaties and agreements on the use of space.

¹⁶ The Antártida Treaty was signed in Washington DC, on December 1, 1959, by the countries that demanded the possession of parts of the continent of Antarctica, in which they committed themselves to suspend their pretensions for an indefinite period, and that allowed the freedom of scientific exploration of the continent under a regime of international cooperation. The Treaty entered into force in June 1961. Brazil adhered to the Treaty on May 16, 1975.

The space sector, as well as the cybernetic and nuclear sectors, is considered to be a fundamental sector for National Defense, as established in the National Defense Strategy. One of the main objectives of the Brazilian Space Program (PEB) is to achieve autonomy in the development of space activities. The Program has a strategic character; allows the monitoring and management of the vast national territory; contribute to the domain of communication and information technologies; enables meteorological prediction; and enables the control of air and maritime traffic, in addition to the development of new space technologies. Among the main projects in the scope of the Brazilian Space Program, the following stand out:

- The Chino-Brasileño Terrestrial Resources Satellite (CBERS): in July 1988, the governments of Brazil and China signed an agreement for the development of two advanced remote sensing satellites. Thanks to the union of financial and technological resources, a system of divided responsibilities (30% Brazilian and 70% Chinese) was created, with the intention of implementing a complete system for capturing images at an international level.
- The Brazilian Satellite Launch Vehicle (VLS-1)¹⁷: the main Brazilian space project being developed by the Instituto de Aeronáutica y Espacio (IAE) of the Brazilian Air Force.
- The Project Cyclone-4, with Ukraine: this project manages Alcantara Cyclone Space (ACS), a binational public company with Brazilian and Ukrainian capital established in August 2006 with the objective of commercializing and launching satellites using the Ukrainian Cyclone launch vehicle -4 from the Alcán tara Launch Center, in the Brazilian state of Maranhao.
- The Argentine-Brazilian Ocean Observation Satellite Space Cooperation Project (Sabiá-Mar): in November 2007, Brazil and Argentina signed an agreement with the objective of designing, producing and launching an Earth observation satellite for investigations environmental and oceanic. The project, which will be managed by a joint committee with representatives from Argentina and Brazil, is in its initial stage. The expectation is that the satellite, dedicated to oceanographic observation, will be launched in 2015.
- The Microsatellite Launch Vehicle Project (VLM-1): its objective is to develop a cohete for launching special payloads or microsatellites (up to 150 kg) in equatorial and polar or re-entry orbits. The project will tend to interface with

¹⁷ The project on VLS will be addressed in chapter 5.

others relating to the development of inertial platforms, engines for rockets, in addition to the launching of satellites. It coordinates the Brazilian Space Agency and involves the Instituto de Aeronáutica y Espacio, foreign research institutes (one German and the other Swedish) and Brazilian private companies.

International Regimes on the Environment

The environmental theme has a progressive strategic importance for Brazil and brings new challenges for the country in the defense area. The protection of natural resources gained prominence in the formulation of the Defense Strategy, mainly in what concerns the Amazon region.

Brazil guides its action in the environmental area based on “Principle 2”¹⁸ of the Declaration of Rio de Janeiro on Environment and Development, adopted at the Conference of the United Nations on Environment and Sustainable Development (UNCED, Rio-92) 19, which reaffirms the sovereign right of each nation to exploit its natural resources in accordance with its own environmental and development policies. The counterpart to the right of sovereign exploitation is the commitment of each State not to cause damage to the environment by activities that are carried out under its jurisdiction or under its control.

Brazil recognizes the importance of international cooperation for environmental cooperation and for promoting the sustainable use of natural resources, especially with neighboring countries. It forms part of several bilateral and regional agreements that establish cooperation for the management of transboundary natural resources, such as the agreements that establish cooperation and the use of water resources in the Plata region and the agreement that establishes the Organization of the Treaty of Amazonian Cooperation (ACTO). In the scope of cooperation with the Amazonian countries, it is worth mentioning the launch in 2010 of the New Strategic Agenda for Cooperation in the Amazon, which achieves a series of cooperation initiatives in the area of conservation and sustainable use of renewable resources.

Within the scope of the Convention on Biological Diversity (CBD), Brazil defends its interests by means of achieving the balance between the three pillars of the Convention: the conservation of biodiversity, its sustainable use and the sharing of benefits derived from the exploitation of genetic resources.

¹⁸ Principle 2: “In accordance with the Charter of the United Nations and the principles of international law, states have the sovereign right to provide their own resources in accordance with their own environmental and social policies, and the responsibility of ensuring that they activities carried out within its jurisdiction or under its control do not cause damage to the environment of other States or of zones that are outside the limits of national jurisdiction”.

¹⁹ The United Nations Conference on Environment and Development was held in Rio de Janeiro in 1992. In 2012, the Rio+20 Conference, which is detailed in Chapter 4, gives continuity to the theme, in accordance with Resolution 64/236 of the General Assembly of the UN.

Brazil considers that establishing an international regime on access to genetic resources and associated traditional knowledge is an important measure to guarantee the rights of countries and communities, traditional holders of these resources, as well as to combat biopiracy.

Brazil's action in forums on jungles, especially the Foro de las Nações Unidas sobre Selvas (UNFF), is geared towards strengthening international cooperation with a view to increasing the capacity of all States, especially those that are on the way of development, of contributing to the protection, conservation and sustainable management of its forest resources. Brazil does not renounce national decision-making autonomy to formulate public policies for the conservation and sustainable development of its forest resources.

In the last few years, Brazil has expanded its actions in order to preserve the forest areas, as well as perfecting the measures of regulation, monitoring and inspection, technical assistance, training of the workforce, facilitating credit and encouraging productive activities sustainable. The defense of this natural heritage will continue to be a commitment for the coming decades.

The preservation of the environment is an important objective. The modernization of Brazil's defense structure is vital to protect this enormous heritage. The preservation of the environment in general and the conservation of tropical forests and other biomes are responsibilities shared by the competent bodies, both at municipal and state and federal levels. The Defense Ministry is aware of its responsibility to contribute to the preservation, control and maintenance of the country's forest areas.

Foreign and defense policies

Foreign and defense policies are complementary and inseparable. The maintenance of regional stability and the construction of a more cooperative international environment, of great interest to Brazil, will be favored by the joint action of the Ministry of Defense (MD) and of Foreign Affairs (MRE).

The National Defense Policy (PND), the National Defense Strategy (END) and the National Defense White Book (LBDN) represent historic milestones in terms of the affirmation and dissemination of the fundamentals and parameters of defense. The Politics and the Strategy have responsibilities in the promotion of the national interest, in particular in the themes related to the development and security of the Country. They demonstrate the need to strengthen the dialogue mechanisms between the MD and the MRE, as regards the approximation of their intelligences and joint planning.

On the other hand, on the global level, the articulated participation of military and diplomatic personnel in multilateral forums (Consejo de Defensa Sudamericano and political-military dialogues) increases the capacity for both foreign and defense policies of the country to anticipate in a coherent and strategic to the transformations of the international system and its government structures, facilitating, therefore, the task of defending Brazilian interests abroad. This joint action has to seek the diversification of alliances, in such a way that the relationships between developing countries are strengthened, without prejudice to the traditional relationships with allies of the developing world. At the same time that Brazil seeks to optimize the conditions for obtaining technology in the most developed countries, the profile of the nations that make up the BRICS group and the IBSA Forum demonstrates that there are great possibilities for cooperation between countries in development, even in areas of technology advanced. Examples include the Misil Air-Air Program with South Africa, cooperation in the space area with Russia, the CBERS program with China and the project for plane 145 of the Empresa Brasileira de Aeronáutica (EMBRAER) with radar from India, embryo for future cooperation with India in the defense area.

Misil Air-Ar Program

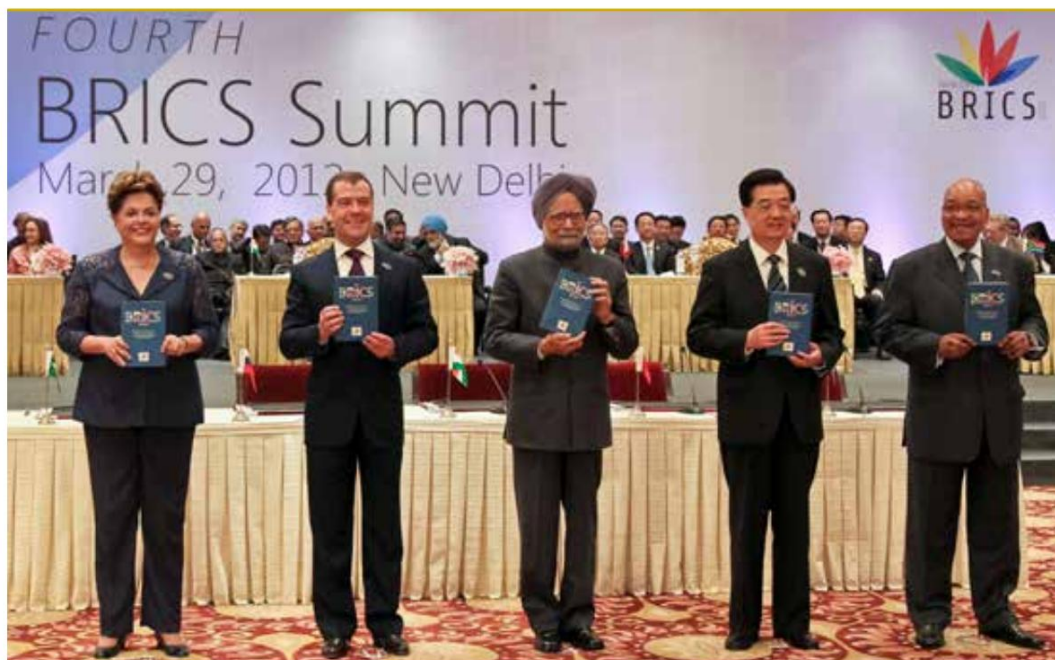
The Fuerza Aérea Brasileña and the Fuerza Aérea de Sudáfrica are producing in cooperation a new missile, the A-Darter. The project was started in 2006, with investment from both countries, as a result of the alliance between the governments. The Brazilian part of the project supports the Estudios and Projects Financing Institution (FINEP). It is a defense missile, from aircraft to aircraft, of short range, of the fifth generation, that is to say, which can carry out maneuvers to reach whites during the flight, with an infrared detection system.

At the regional level, especially in South America, the relationship between foreign policy and defense policy must take place in the sense of promoting and expanding integration to strengthen South American action on the international stage. It has to be, likewise, an integrating factor so that local governments can articulate themselves in order to allocate threats to peace and security in the region.

The South Atlantic between Brazil and Africa, the neighboring continent that significantly influenced the formation process of the Brazilian Nation. The special attention dedicated to Africa is reflected in the growing trade and the increase in financing and investments, such as cooperation for the production of food and other agricultural benefits with the support of the Empresa Brasileira de Investigación Agropecuaria (EMBRAPA). The protection of the lines of

communication and trade routes with Africa have a strategic meaning for the country. It is a major factor in the sense of consolidating cooperation ties in the South Atlantic.

Endowed with an adequate defensive capacity, Brazil will have the capacity to dissuade attacks on its territory, as well as its population and its interests, which will contribute to the maintenance of a peaceful environment in its surroundings. At the same time, and in a manner consistent with the country's cooperative policy, the growing coordination of the South American States in matters of defense will help to avoid possible hostile actions against the heritage of each of the nations of the region. For dissuasion and cooperation, Brazil will also strengthen the close link between its defense policy and its foreign policy, historically dedicated to the cause of peace, integration and development.



Fourth BRICS Group Summit – New Delhi, India – March 2012

CHAPTER 3



TRIBUTE TO LAS FUERZAS ARMADAS

THE DEFENSA AND THE MILITARY INSTRUMENT

“Only does sovereignty exist effectively with a strong Defence, it is decided, with Armed Forces suitably equipped and trained, able to act jointly in any scenario, especially in the face of increasingly widespread threats.”

Presidency of the Republic, Secretary of
Strategic Issues — Plan Brasil 2022
Brasilia, December 2010

The military instrument that Brazil has for its defense is made up of the Armed Forces, composed of the Brazilian Navy, the Brazilian Army and the Brazilian Air Force, institutions that need to have the capacity to ensure the integrity of the territory and the defense of the national interests, people, welfare and Brazilian resources, as well as how to guarantee the sovereignty of the country. The three institutions are integral parts of the structure of the Ministry of Defense (MD), which guides, supervises and coordinates all actions relating to the Armed Forces.

The territory is the physical base of the Nation, delimited by the borders, the waters and the air space under Brazilian jurisdiction. The dimension of Brazil is continental. To guarantee their defense, the Armed Forces are structured in accordance with the Federal Constitution and with the legislation based on the Constitution.

The National Defense Policy (PND)²⁰ and the National Defense Strategy (END) constitute legal frameworks that guide the organization and modernization of the Brazilian military instrument, as well as its preparation and use, according to the political and strategic stature of Brazil. These documents define the deterrent strategic posture adopted by the country, which strives for an active policy of diplomacy directed towards peace and the *desarollo*, while maintaining the relationship of friendship and cooperation with the neighboring countries and the international community, based on the trust and mutual respect. According to the legal guidelines, the Brazilian Armed Forces are structured around capabilities and not in terms of enemies.

With regard to the international scenario, the preventive aspect of the National Defense lies in the valorization of diplomatic action as a primary instrument of solution

²⁰ The current National Defense Policy (PDN), approved by Decree No. 5,484, of June 30, 2005, was updated in 2012 and was named the National Defense Policy (PND). Here we consider the new nomenclature.

of conflicts and on a strategic posture based on the existence of a recognized military capacity, able to generate a dissuasive effect. To expand the country's proyección in the world context and reaffirm its commitment to the defense of peace and cooperation between the peoples, Brazil has promoted actions that are intended to:

- Intensify your participation in humanitarian actions and peace missions under the aegis of multilateral organizations.
- Have capacity to project power, seeking eventual participation in other operations established or authorized by the UN Security Council.
- Intensify the exchange with the Armed Forces of other nations, particularly with those of South America and the West Coast of Africa, and strengthen ties with other countries that interact in concert forums such as IBSA and BRICS, in addition to traditional alliances.

The Armed Forces²¹, constituted by the Navy, the Ejército and the Air Force, are permanent and regular national institutions, organized and based on hierarchy and discipline, under the supreme authority of the President of the Republic, and are destined to defend the Homeland, guarantee the constitutional powers and, on the initiative of any of them, guarantee the law and the order, with the objective of preserving the exercise of the sovereignty of the State and the indissolubility of the federative unit. It should be noted that the obedience of the Armed Forces to constitutional political power is a presupposition of the republican regime and guarantee of the integrity of the Nation, which is under the authority of the President of the Republic through the Ministry of Defence. In addition to these missions, secondarily, the Forces cooperate with national development and civil defense.

Likewise, they correspond to the Armed Forces, preserving the exclusive competences of the judicial police, acting against crimes on the land border, the air space, the sea and the internal waters, and in coordination with other bodies of the Executive Power, according to the attribution specific pieces²² from the Navy, the Ejército and the Air Force.

In case of an aggression against the Country, the State will use all the national power, with emphasis on the military expression, exercising the right of legitimate defense, foreseen in the Charter of the UN²³. The country's military expression is based on the capacity of the Armed Forces and on the potential of the national resources that can be put into action. The latter reflects, in addition to material resources, Brazil's ability to rapidly increase human resources, resorting to the reserve strength of the military service. The Ministry of Defense administers the integrated effort of the National Defense.

²¹ Federal Constitution art. 142.

²² According to Ley Complementaria no 97 of June 9, 1999, art. 16-LA.

²³ Charter of the UN, art. 51.

Ministry of Defense

The Ministry of Defense (MD) was created on June 10, 1999, in replacement of the Estado Mayor de las Fuerzas Armadas and the Ministerios Militares. The former Ministerios de Fuerzas were transformed into Comandos de Armada, Ejército and Fuerza Aérea, and are led by General Officers in degrees of major hierarchy in the military career: Almirante de Escuadra, General de Ejército and Teniente Brigadier del Aire, respectively.

The Ministry of Defence, as a federal public administration body, has the task of coordinating the integrated defense effort, contributing to the guarantee of sovereignty, constitutional powers, law and order and national heritage, as well as safeguarding the national interests and the increased insertion of Brazil in the international scenario.

The Defense Ministry exerts its competence in a range of diverse topics, some of great sensitivity and complexity, among which are military operations and joint operations doctrinal; presumption of defense; military policies and strategies; strategic intelligence; science, technology and innovation; defense teaching; salud; national mobilization; remote monitoring; command and control; in addition to military service, among others.

The MD is also a political actor responsible for stimulating cooperation between the other government sectors related to the country's defense, aligning defense projects with the programs developed by other areas of the government.

organizational structure

The new perspectives, which have emerged with the National Defense Strategy and the greater protagonism of the Defense Ministry in the Brazilian political scenario, demand a broad structural reorganization of said organism to promote the role played by the Major State Joint of the Armed Forces, the Secretarías and other organizations that compose it.

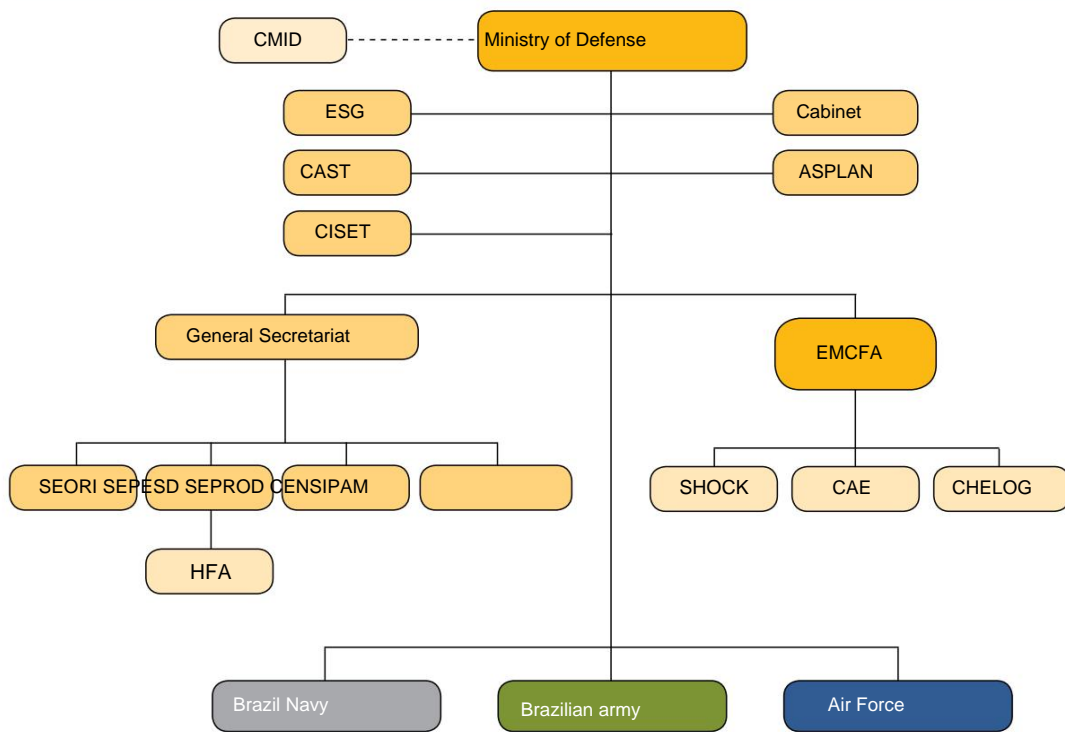
The organizational structure of the Ministry of Defense includes the following sectors: •

Consejo Militar de Defensa (CMiD) - advisory body for Defensa. • Estado

Mayor Conjunto de las Fuerzas Armadas (EMCFA).

- Secretary General (SG).
- Cabinet of the Defense Minister.
- Asesoría de Planificación Institucional (ASPLAN).
- Escuela Superior de Guerra (ESG).

- Legal Consultancy (CONJUR).
- Secretariat of Internal Control (CISSET).
- Secretariat for Institutional Organization (SEORI).
- Secretariat for Personal, Education, Health and Sports (SEPESD).
- Secretary of Defense Products (SEPROD).
- Center for Administration and Operation of the Amazon Protection System (CENSIPAM).



Organigram of the Ministry of Defense

Consejo Militar de Defensa (CMiD)

The CMiD is composed of the Commanders of the Armada, the Army and the Air Force, in addition to the Chief Executive of the Joint Chiefs of Armed Forces, chaired by the Minister of Defence. As a complementary part of the Defense Military Structure, it corresponds to the Consejo to collaborate with the President of the Republic in what concerns the use of military means and to advise the Defense Minister in the competences foreseen in item III, of art. 3º, of Decree No. 7276, of August 25, 2010.

Decree No. 7276, of August 25, 2010, art. 3rd —The authorities and the organizations that make up the Defense Military Structure compete, in addition to the responsibilities provided for in specific legislation: III – The Defense Military Council: a) advise the President of the Republic in what is related to the use of military means; yb) advise the Minister of State for Defense in his competences related to the President of the Republic, who are: in the decision on the use of the Armed Forces; in the activation of the Operative Commands, in the face of a crisis situation or armed conflict or participation in peace operations; in the designation of the Commanders of Operative Commands; on the issuance of directives that guide the actions of the Operative Commands, in case of their use; and in the approval of strategic planning of use. Likewise, to advise the Minister of Defense in his other competences to: issue directives for the use of the Armed Forces, conduct of joint exercises and peace operations; activate the Operational Commands in compliance with the determination of the President of the Republic; designate and activate the Operating Commands for planning of use, foreseen in the hypotheses of use and for exercises in joint operations; approve the strategic planning carried out by the Estado Mayor Joint of the Armed Forces to meet the hypotheses of use; and assign the means to the Operative Commands, according to the needs presented by the Operative Commanders and the availability of the Armed Forces.

State Mayor Conjunto de las Fuerzas Armadas (EMCFA)

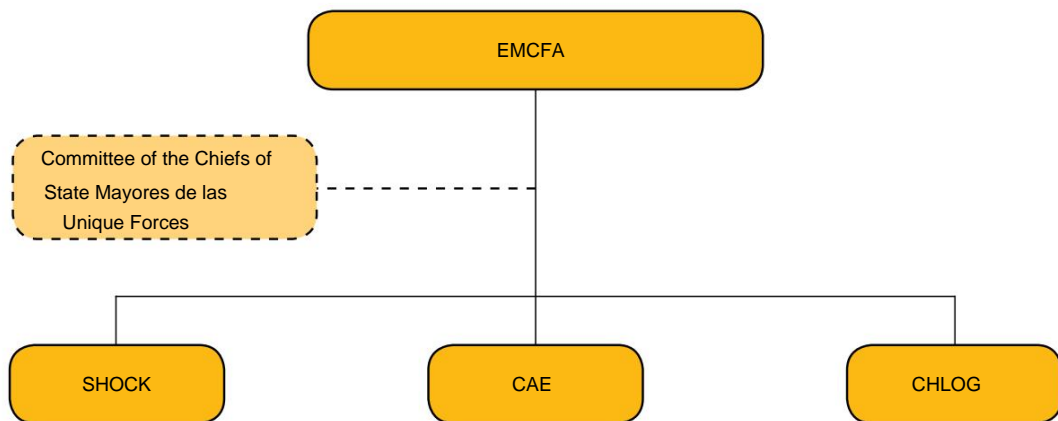
It corresponds to the EMCFA to prepare the planning for the joint use of the Armed Forces and to advise the Minister of State for Defense in the planning of operations and joint training exercises, in the performance of the Brazilian Fuerzas in peace operations and in other attributions that le sean establecidas.

The EMCFA plays a fundamental role in the execution of the National Defense Strategy, as it is responsible for coordinating interoperability programs in order to optimize military means in the defense of the country, in the security of the borders and in the operations of humanitarian and rescue.

The main instrument, through which the Armed Forces will develop their strategic and tactical flexibility, is the work organized between the Armed Forces commands, which must perfect the operational guidelines together as a way of deepening their capabilities. The reference for this organization will be the collaboration between the States Mayores of each Fuerza with the Estado Mayor Joint of the Armed Forces, in the establishment and perfection of interoperability.

The position of Jefe del Estado Mayor Conjunto de las Armadas is exclusive to the General Officer of the last grade, active or in reserve, appointed by the Minister of Defense and nominated by the President of the Republic. Under its coordination, the EMCFA has a committee integrated by the Chiefs of the States Mayores of the Singular Forces.

The Estado Mayor Conjunto de las Fuerzas Armadas is structured among three Headquarters, whose responsible are General Officers of the last degree active.



Organigram of the Mayor State Joint of the Armed Forces

Headquarters of Joint Operations (CHOC)

It has as competence the planning and monitoring of the operations and carrying out joint cycles of the Armed Forces, which includes the calculation of the joint defense measures, the elaboration and updating of the doctrine and the strategic planning with the joint use of the Armed Forces. It follows up the use of joint or singular Operational Commands, proposes guidelines, plans, coordinates and monitors the performance of the Armed Forces in peace operations, subsidiary actions and actions to support civil defense. Tiene as subordinates the following sectors: • Vice Headquarters of Joint Operations (VCOC). • Asesoría de Inteligencia Operativa (AIOP).

- Sub-factory of Control (SC1).
- Subjecture of Operations (SC3).
- Operational Logistics sub-subject (SC4).

Strategic Affairs Headquarters (CAE)

It has the competence to accompany the political and strategic circumstances, as well as the strategic intelligence, both related to the National Defence. Participates, likewise, in representations in organizations in Brazil and abroad. This Headquarters has contact with the Ministry of Foreign Affairs and with the military aggregates commissioned in other countries. In addition to this, it advises the Minister of Defense on proposals for cooperation with other countries. Tiene as subordinadas the following sectors:

- Sub-subject of Policy and Strategy (SPCE).
- Subjecture of Strategic Intelligence (SCIE).
- Sub-subject to International Affairs (SCAI).
- Representación Brasileña en la Junta Interamericana de Defensa (RBJID).
- Military Advisors in New York and Geneva.
- Agregadurías de Defensa de Brasil en el Abroad.

Logistics Headquarters (CHLOG)

Tiene as competence in themes related to logistics, national mobilization and military service. It coordinates the planning, execution and monitoring of programs and projects aimed at the logistical integration of the Armed Forces and the mobilization of the military and national forces. Additional attributions of this Headquarters: the Plan for Coordination and Defense Equipment (PAED) and the Citizenship Program. Tiene as subordinadas the following subjectures:

- Subjecture of Logistics Integration (SUBILOG).
- Subjefatura de Movilización (SUBMOB).

Office of the Minister of Defense

The Cabinet has the responsibility of providing direct and immediate assistance to the Minister of Defence. Among the corresponding activities, the following stand out: accompanying the course of projects of interest to the Ministry of Defense in progress at the National Congress; respond to queries and requests made by the National Congress, the Judicial Branch and the Public Ministry; advise the Minister of Defense in the elaboration and execution of the Ministry's social communication policy; exercise the attributions of unity of the defender of the village of the Ministry of Defensa; as well as coordinating the work and other activities of the Assistants of Orders and the security of the Minister of State for Defence.

Institutional Planning Office (ASPLAN)

It corresponds to ASPLAN to conduct the elaboration process of the Libro Blanco de Defensa Nacional (LBDN); elaborate the continuous and systematic process of knowledge of the future scenario; lead and coordinate the strategic planning of the Defense Ministry; organize itself with the different areas of the Defense Ministry to measure the results of the actions; and provide inputs and technical inputs according to the expectations foreseen in the strategic planning.

Legal Consultancy (CONJUR)

CONJUR advises the Minister of Defense on matters of a legal nature; elaborates estudios y dictámenes; and fixes the interpretation of the Constitution and of laws, treaties and other normative acts, specifically when there is no normative orientation of the General Law of the Union. It also examines, in advance and conclusively, texts of requirements for direct adjudication and respective contracts or similar instruments that will be published and signed.

Secretariat of Internal Control (CISSET)

This Secretariat has the responsibility of exercising control and supervision of the financial program. Likewise, it registers operations related to presupposed, financial and asset management. It controls and supervises activities related to the achievement of goals set out in the Multiannual Plan, the execution of government programs on the assumption, the management of administrators and credit operations.

Secretary General (SG)

The General Secretariat advises the Minister of Defense on matters within its competence and on the definition of guidelines; supervises, coordinates and controls the activities of the other Secretariats that are part of the structure of the Ministry of Defense and the Center for Administration and Operation of the Amazon Protection System; and carries out other activities inherent to its area of activity.

Secretariat of Institutional Organization (SEORI)

This Secretariat draws up guidelines related to the modernization of organizational structures and the rationalization and integration of administrative procedures common to the

Armed Forces and the Central Administration²⁴, coordinate the proposal of legislation in the interest of Defense. Complementary attributions of the Secretariat are also relevant:

- Coordinating the joint elaboration of the presumptive proposal of the Armed Forces and consolidating it, obeying the priorities established in the National Defence Strategy, made explicit in the Presuppositional Directives Law.
- Consolidate the multiannual plans with the presupposed proposals of the Armed Forces and the Central Administration of the Ministry of Defense. • Exercise the function of sectoral organization of the Systems of Administration of Resources of Information and Computing, of General Services, of Federal Planning and Budget, of Federal Financial Administration and of Federal Accounting.
- Coordinate and supervise the activities of the Calha Norte Program.

Secretariat for Personal, Education, Health and Sports (SEPESD)

This Secretariat has the responsibility of formulating, updating and monitoring the execution of policies, strategies and sectoral guidelines of the Defense personnel, in aspects comunes a más de una Fuerza.

Likewise, it corresponds to accompanying the implementation of the actions foreseen in it regulation of the Defense Education Policy.

In the sports area, it proposes general guidelines and complementary instructions to activities related to military sports, in aspects common to more than one Force, and carries out the follow-up of its execution.

SESPED carries out managements for the capture of financial resources that can benefit the Rondon Project²⁵, proposes the formulation and updating of the policy and health strategy, as well as the social assistance of the Armed Forces, and supervises the management of the Hospital of the Armed Forces Armadas (HFA)²⁶ in Brasilia (DF).

Secretary of Defense Products (SEPROD)

This Secretariat has the competence to advise on the formulation and updating of following policies, in addition to accompanying its execution:

²⁴The Central Administration of the Defense Ministry is made up of direct and immediate advisory bodies of the Minister, the Secretaries and the Joint Chiefs of Armed Forces.

²⁵ Proyecto Rondon is a program of the Federal Government, coordinated by the Ministry of Defense, which will be detailed in chapter 4.

²⁶ The Hospital de las Fuerzas Armadas is a military hospital, headquartered in Brasilia, for the treatment and hospitalization of active, reserve and retired military personnel, in addition to their dependents and other persons authorized by health insurance or special directives, which need general and specialized medical-surgical treatment.

- National Defense Science, Technology and Innovation Policy, seeking to reduce the technological roll and create new defense products.
- National Defense Industry Policy.
- Defense Product Procurement Policy.

SEPROD normalizes and supervises actions related to the control of imports and exports of defense products, and represents the Ministry of Defense before other ministries in national and international forums that include defense products and on issues related to science, technology and innovation.

It works with the Federal Government to establish special norms to encourage the defense industry, with regard to the purchase of products and contracts, in order to promote its development and foster²⁷ greater competitiveness in the international market.

It also works in the supervision and promotion of basic industrial technology activities of common interest to the Armed Forces; supervises the science, technology and innovation activities that have as their objective the development and industrialization of new defense products; in addition to supervising the activities of obtaining military technology information and the Military Cataloging System (SisMiCat).

Military Cataloging System (SisMiCat)

It is a uniform and common system for the identification, classification and codification of stock items of the Brazilian Armed Forces and other organizations participating in the civil segment of the Federal Government. This system allows total integration and interoperability between the Armed Forces in the material area, through the use of a single language, providing, in an economical way, a centralized database that absorbs and makes available all the cataloging information of the country.

Center for Administration and Operation of the Amazon Protection System (CENSIPAM)

This center was created in 2002. In 2011 it was transferred to the organizational sphere of the Ministry of Defense with the status of Secretary. Among other attributions, it corresponds to: proposing, monitoring, implementing and executing the policies, guidelines and actions directed at the Amazon Protection System (SIPAM). Formed by federal, state, district, municipal and non-governmental organizations, the Center promotes the gradual and structured activation of SIPAM, and develops actions to update and progressively evolve the concept and technological apparatus of SIPAM.

²⁷ As an example, the enactment of Law No. 12,598, dated March 22, 2012, can be cited, addressed in chapter 5.

Amazon Protection System (SIPAM)

It is a systemic organization for the production and dissemination of technical information, formed by a complex technological base and an institutional network, in charge of integrating and generating up-to-date information for the articulation, planning and coordination of global actions of the government in the Legal Amazon, aiming at protection, inclusion and sustainable development of the region.

Enseñanza en el ámbito de la Defensa

The Ministry of Defense participates in the teaching process through directly subordinate institutions: Escuela Superior de Guerra (ESG), Instituto de Doctrina de Operaciones Conjuntas (IDOC), Instituto Pandiá Calógeras (IPC)²⁸ and the Joint Center of Peace Operations in Brazil (CCOPAB).

In the Armed Forces the defense education takes place in the military schools, whose curricula have undergone a recent process of adaptation to the new context of security and defense specified by the national and international contexts. The members of the Defense sector must be trained, from their initial training, from a perspective of joint action, in a competent and cooperative way.

Escuela Superior de Guerra (ESG)

It was created in 1949 with the purpose of developing and consolidating the necessary knowledge for the exercise of advisory and management functions and for the planning of national security in the government area.

Subordinated directly to the Minister of Defence, it is currently an institute of high studies and research in the area of national development, security and defence, which transmits to civilians and military personnel ample knowledge about Brazilian problems. The Escuela offers a set of training courses in the area of defense, such as the Curso de Altos Estudios de Política y Estrategia (CAEPE), the Higher Course in Politics and Strategy (CSUPE), the Curso de Derecho Internacional de Conflictos Armados, the Higher Course in Strategic Intelligence and the Joint Mayor's Course. El CAEPE y el CSUPE son los dos cursos de mayor relevancia in the dissemination of knowledge in the Defense sector.

²⁸ In the process of implantation.

The CAEPE is a course imparted on the campus of the Escuela Superior de Guerra de Rio de Janeiro, fully face-to-face and lasting one year. Its purpose is to prepare civilians and military personnel, including those from other nations, for the exercise of high-level management and advisory functions in public administration, especially in the area of National Defence.

The CSUPE, which began in 2011, is a course taught on the campus of the ESG in Brasilia and its objective is to encourage the study and disseminate Defense themes in the highest levels of public administration, in the military environment and alongside business and academic sectors. The CSUPE lasts approximately two months, with face-to-face classes and the participation of speakers from different government areas and the private sector.

In addition to its academic activities, it counts on the support and collaboration of the Asociación de Diplomados de la Escuela Superior de Guerra (ADESG) to disseminate the work produced nationwide.

In tune with the new national reality, the Ministry of Defense is implementing a series of structural changes in the School so that it can follow in better conditions the guidelines contained in the National Defense Strategy. Some of these changes are:

- Increase the institutional capacity of the School to develop activities academic and administrative.
- Intensify the fluid exchange between members of the Federal Government.
- Optimize the training of human resources related to defense matters.



ESG - Rio de Janeiro (RJ)

Joint Operations Doctrine Institute (IDOC)

The Institute works on the campus of the Escola Superior de Guerra in Rio de Janeiro. Tiene the mission to investigate and study the doctrine of joint operations, enabling the uniformity of the teaching of said doctrine in the scope of high schools
Estudios de las tres Fuerzas.

Pandiá Calógeras Institute (IPC)²⁹

This Institute, which is in the process of being implemented, will be a civil institution, directly related to the Minister of Defence, and will function as a center for studies and strategic research in National Defence, articulating civil and military initiatives with the fine task of developing studies that attending to the demands for solutions from the Ministry of Defense in the medium and long term.

In the academic sphere and through an environment conducive to the observation of faith nominees of power and strategy in the world, the Institute intends to:

- Promote and participate in events on the theme of Defence, contributing to the formulation of an authentic Brazilian thought in this area.
- Stimulate integration with the academic environment.
- Install and maintain, in collaboration with related organizations, a document center that serves as a reference and database with indicators for consultation, studies, investigations and projects.
- Carry out studies, investigations and projects that contribute to the formulation and knowledge of new paradigms of thought and action within the scope of National Defence.

In order to achieve its objectives, the Institute will maintain a very close relationship with similar institutes and with national and international think tanks³⁰, through cooperation agreements.

²⁹ Pandiá Calógeras was the first civilian who exercised the position of Minister of War in Brazilian Republican History, in the Government of Epitácio Pessoa, from October 3, 1919 to November 15, 1922.

³⁰ Reference to an institution dedicated to producing and disseminating knowledge in the political, economic and scientific fields, among others, encompassing state entities, associations, companies and universities.

Courses for Officers of the Armed Forces

NATURE OF LOS COURSES	LEVELS	MINISTRY OF DEFENSE	ARMADA	ARMY	AIR FORCE	
Training	—	—	Escuela Naval (EN)	Military Academy of Las Agulhas Black (AMAN)	Academia de la Fuerza Air (AFA)	
				Military Institute of Engineering (IME)	Technological Institute of Aeronautics (ITA)	
Training	—	—	center of instruction Admiral Wandenkolk (CIAW)	school of Health of the Army (EsSEx)	Instruction Center and adaptation of it Air Force (CIAAR)	
				school of Training Complementary of the Army (EsFCEx)		
Specialization	—	Escuela Superior de Guerra (ESG) — CEMC, CSIE, CLMN, CSUPE	Schools, Education Centers, Health Organizations and other Military Organizations* within the scope of the three Armed Forces.			
Perfectioning		—	center of instruction Admiral Wandenkolk (CIAW)	school of Perfectioning of Officials <small>(And they are)</small>	school of perfection of Officials of the Force Air (EAOAR)	
command y State Mayor		—	—	War School Naval (EGN)	school of command y State Mayor of Army (ECEME)	Escuela de Comando y Estado Mayor de la Fuerza Aérea (ECEMAR)
		—	—			University of Fuerza Air (UNIFA)
Policy and Strategy		—	Escuela Superior de Guerra (ESG) — CAEPE	War School Naval (EGN)	school of command y State-Mayor of Army (ECEME)	Escuela de Comando y Estado Mayor de la Fuerza Aérea (ECEMAR)
		—				—
Scientific and technological area	—	—	—	Military Institute of Engineering (IME)	Technological Institute of the Air Force (ITA)	

* Military Organizations (OM) are troop units, divisions, establishments, Ships, naval or air bases and any other tactical or administrative unit that forms part of the organism of the Armada, the Army or the Air Force.

COURSES FOR CARRERA SERGEANTS OF LAS FUERZAS ARMADAS

NATURE OF LOS COURSES	LEVELS	ARMADA	ARMY	AIR FORCE	
	Training of Sergeants	Instruction Center Alexandrine Admiral (CIAA)	Escuela de Sargentos de las Weapons (This)	Air Force Specialists School (EEAR)	
			School of Sergeants Logistics (EsSLog)		
		Instruction Center Admiral Sylvio de Camargo (CIASC)	school of instruction Specialized (EsIE)		
			School of Health Army (EsSEx)		
			Instruction Center by Aviation of the Army (CIAvEx)		
	practices of adaptation	—————	—————	Aeronautical Specialists School (EEAR)	
		Various Training and Training Centres, Physical Education Centres, Health Organizations, Troop Corps, Military Teaching Organizations, Military Organizations in general, Operative Squadrons and Buques.			
			Instruction Center Alexandrine Admiral (CIAA)	school of Perfectioning of Sergeants of Arms (EASA)	Air Force Specialists School (EEAR)
			Instruction Center Admiral Sylvio de Camargo (CIASC)	School of Sergeants Logistics (EsSLOG)	
			Directorate of Hydrography and Navigation (DHN)	school of instruction Specialized (EsIE)	
Marcílio Naval Hospital Days (HNMD)			School of Health Army (EsSEx)		
Instruction Center and Admiral training Attila Monteiro Ache (CIAMA)			Army Aviation Instruction Center (CIAvEx)		
Instruction Center and Aeronaval training Admiral José Maria do Amaral Oliveira (CIAAN)					

Sources: Law No. 9786, February 8, 1999; Decree No. 3182, September 23, 1999; Portal de Enseñanza del Ejército Brasileño. Law No. 11,279, February 9, 2006; Decree No. 6883, dated June 25, 2009, Plan de Career de Suboficiales de Armada; Portal de la Dirección de Enseñanza de la Armada (PCPM).

Joint Peace Operations Center of Brazil (CCOPAB)

The CCOPAB, called Centro Sérgio Vieira de Mello, prepares military and civilians, both Brazilian and from friendly countries, to act in peace operations and humanitarian demining.

In 2010, the Centro de Instrucción de Operaciones de Paz (CIOPaz), a unit of the Brazilian Army originally installed in 2005, was transformed into a joint unit that originated from CCOPAB and brought together members of the three Armed Forces, the Military Police and the Bombers. This integration continues to favor markedly the synergy of efforts of these professionals in multidimensional peace missions.

Strategic sectors of Defense

The National Defense Strategy selected three sectors as strategic: nuclear, cybernetic and space. The Ministerial Directive of the MD no 14/2009 determined that the nuclear sector will fall under the coordination of the Navy, the cybernetic of the Army and the space sector of the Air Force.

In the three sectors, the priority is to increase the scientific and technological capacity of Country and preparing human resources.

The Nuclear Sector

Brazil has developed nuclear technology with its own knowledge and is currently included among the main countries that dominate it, standing out in energy generation and in the medical and industrial areas. It has knowledge of the entire fuel production process and has deposits of uranium in sufficient quantity for its own needs.

Its main objective is the consolidation and technological autonomy of the nuclear industry as a cutting-edge sector, essential for development. As already explained in Chapter 2, the use of nuclear technology in Brazil is aimed exclusively at peaceful applications.

It should also be noted that the Brazilian nuclear industrial park is classified as an international reference, especially in what concerns the area of security and protection of the installations, as well as the control of outcomes.

Since 1979, the Armada has collaborated with the Brazilian Nuclear Program and has achieved total control over the nuclear fuel cycle³¹, in addition to the fact that it currently provides centrifuges to the Nuclear Industries of Brazil (INB), based in Resende (RJ) .

³¹ The nuclear fuel cycle is the set of steps in the industrial process that transforms the mineral uranium from the moment it is found in its natural state until its use as fuel in a nuclear power plant.

An essential part of the Navy's Nuclear Program is the construction of a reactor for the Brazilian nuclear-powered submarine, which will considerably increase Brazil's defense capacity in the South Atlantic.

It is important to emphasize that only the propulsion of the submarine is nuclear, which is expressly permitted by the agreement signed with the International Atomic Energy Agency (IAEA). All its weapons will be conventional, due to Brazil's constitutional commitment to the peaceful use of this energy, reaffirmed in international instruments, such as the TNP; regionales, such as the Treaty of Tlatelolco; and bilaterally, such as the Brazil-Argentina agreement (ABACC).

Having a nuclear-powered submarine will collaborate with the defense and preservation of national interests in the maritime area, particularly in the South Atlantic. Asimism will enable:

- Protection of commercial routes. • The maintenance of free navigation.
- The protection of natural resources on the continental shelf.
- Technological development.

The Cyber Sector

The cyber threat has become a major concern for putting at risk the integrity of sensible infrastructures, essential for the operation and control of various systems and organizations directly related to national security.

The protection of cyberspace covers a large number of areas, such as training, intelligence, scientific research, teaching, preparation and operational use and personnel management. It also includes the protection of its own assets and the ability to act on the network.

The Sector has intra and interorganizational elements, is multidisciplinary and generates diverse technological products and services, in addition to managerial methods and processes at all levels.

The purpose of the installation of the Cibernético Sector is to provide confidentiality, availability, integrity and authenticity to the data that traffic on its networks, which are processed and stored. This project represents a long-term effort, which will positively influence the operational and science and technology areas.

Under the coordination of the Army, significant advances have been made in the training of specialized personnel and in the development of solutions at a high technological level.

Consequently, the following premises were established for the project:

- Contemplate the multidisciplinary and duality of the applications.
- Foster the defense industrial base.
- Induce that the national industry produces innovative systems. •

Produce national critical components.

El Centro de Defensa Cibernética del Ejército joins the efforts of the existing government organizations and seeks:

- Improve the training of human resources.
- Update the doctrine.

• Strengthen security. •

Respond to network incidents. •

Incorporate lessons learned.

- Protect against cyber attacks.

The Space Sector

Space projects are proposed for scientific and technological development, strengthening Brazilian aerospace power, scientific research, innovation, national launch operations and technological services in aeronautical, space and defense systems.

The Satellite Launch Vehicle (VLS) is the main space project and requires a higher version. The Instituto de Aeronáutica y Espacio (IAE), part of the Department of Aerospace Science and Technology (DCTA), has been developing since 1966 a family of probe probes from the Sonda series. The growing perfection of space technology has allowed the development of the VLS, whose first stage included four identical S-43-type thrusters. These devices, which operate simultaneously, are similar to the first stage of the Sonda IV cohete, belonging to the last series of the Sonda family. In addition to this, other space products have been developed by the national industry or in cooperation with the international industry.

The Alcântara Launch Centers (CLA) and “Barreira do Inferno” (CLBI), located in the states of Maranhao and Rio Grande do Norte, respectively, are organizations of the Air Force Command, subordinated to the Department of Science and Aerospace Technology (DCTA). They act in missions to launch and track aerospace ingenuity, as well as in the collection and processing of data from their payloads, including tests and scientific experiments of interest to the Air Force related to the National Policy for Aerospace Development.

Photograph	Vehicle	Satellite*
	VLS-1 V1	SCD-2A
	VLS-1 V2	SACI 2
	VLS-1 V3	SATEC

Satellite Launch Vehicles

* Brazil designed and built the Data Collection Satellites (SCD 1 and SCD 2) to understand the environmental diversity of our territory. The objective of the Scientific Application Satellites (SACI) is to carry out scientific and technological experiments related to the physics of the atmosphere, and the Technological Satellite (SATEC) has been planned to test the technological equipment onboard the Launch Vehicles of Satellites (VLS).

All the activities carried out by these Centers are the result of projects and programs previously approved in government directives.

CLA and CLBI participate, as remote stations, in joint activities to track suborbital launch operations in association with the Guayanés Space Center (CSG), belonging to the ESA European Consortium, in Kourou, French Guayana.

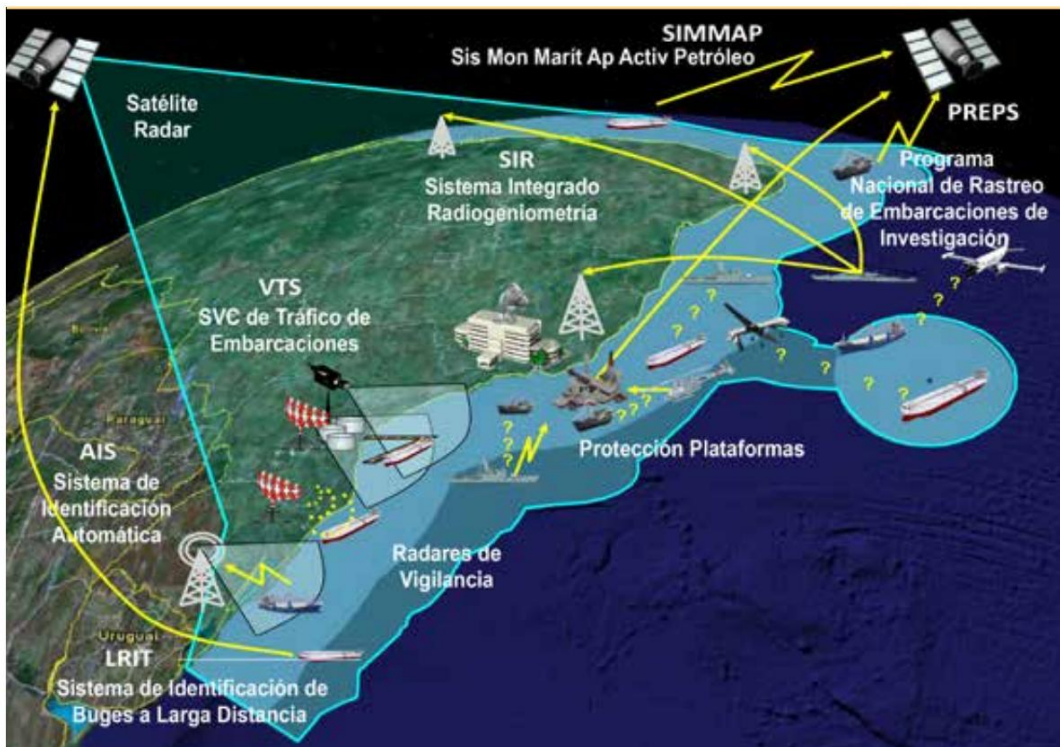
monitoring and control systems

Blue Amazon Administration System (SisGAAz)

The SisGAAz was created to be a monitoring and control system under the international concept of maritime security and for the protection of the Brazilian coast. It was designed to become the main command and control system of the Navy and

provides for the management of activities related to the sea that include surveillance, monitoring, prevention of contamination and natural resources, among others.

The System has the objective of increasing knowledge about the maritime environment and about the position, if necessary, of the operative means available to respond promptly to the crises or emergencies that may occur on the Brazilian coast.



Blue Amazon Administration System (SisGAAz)

Integrated Border Monitoring System (SISFRON)

The SISFRON, following the guidelines of the National Defense Strategy and based on monitoring/control, mobility and presence, will allow the Terrestrial Force to keep the borders under surveillance and respond quickly to any threat or aggression, especially in the Amazon region.

With the perspective of interconnecting the SISFRON with the similar systems of the other Forces, the Ministry of Defense and other federal agencies, evolving towards an integrated monitoring system, the System will contribute with unified initiatives of a socioeconomic nature that favor the sustainable development of border zones.



Integrated Border Monitoring System (SISFRON)

Brazilian Air Space Control System (SISCEAB)

Under the responsibility of the Air Force Command, the Brazilian Air Space Control System (SISCEAB) has as its central body the Air Space Control Department (DECEA), which corresponds to providing the necessary means for management and air space control and the provision of Air Navigation Services (ANS), such as: Flight Information (AIS), Air Traffic Management (ATM), Search and Rescue (SAR), Communication, Navigation and Surveillance (CNS), in addition to activities related to Aeronautical Meteorology, Aeronautical Cartography, Aeronautical Telecommunications and Inspection in Flight.

SISCEAB uses human resources and navigation, telecommunication and surveillance equipment, in addition to a wide infrastructure, distributed throughout the national territory, with the mission of providing safety and the fluidity of air traffic in accordance with establishing national standards and agreements and international treaties to which Brazil is a signatory.

The air space under the Brazilian jurisdiction encompasses the territorial air space (8,511,965 km²) and the air space overlying the oceanic area, which extends up to the meridian 10° W, reaching a total of 22 million km²

The System divides the country into four large control areas that are managed by the Integrated Centers for Air Defense and Air Traffic Control (CINDACTA), based in the cities of Brasilia (DF), Curitiba (PR), Recife (PE) and Manaus (AM), in addition to a Regional Flight Protection Service (SRPV), located in Sao Paulo (SP). Under the responsibility of these bodies, the system incorporates five Area Control Centers (ACC), 47 Approach Controls (APP), 59 Aerodrome Control Towers (TWR), 79 Air Space Control Detachments (DTCEA), in addition to more than 90 Aeronautical Telecommunications Stations.



Radar coverage and flight information regions

Brazilian Aerospace Defense System (SISDABRA)

With the same surveillance and telecommunications infrastructure used by SISCE AB, SISDABRA has as its central body the Brazilian Aerospace Defense Command (COMDABRA), a Combined Command directly subordinated to the Supreme Commander (President of the Republic) and component of the Structure Militar de Guerra (EMG), which, in times of peace, is part of the Comando de la Fuerza Aérea (COMAER), with direct subordination to the Comando General de Operaciones Aéreas (COMGAR).

His mission is to guarantee the exercise of sovereignty in the Brazilian Air Space, by means of the control and, if necessary, of the execution of actions and interference against movements in the Brazilian Air Space in disregard of the rules and norms in force, whatever they can represent a threat to national interests, both in times of peace and in times of conflict.

national mobilization

National Movilización System (SINAMOB)

La Movilización nacional³² is a set of activities planned and developed by the State, in a fast and compulsory manner, with the aim of enabling the Country to carry out strategic actions in the field of National Defence. Declaring mobilization is a presidential privilege.

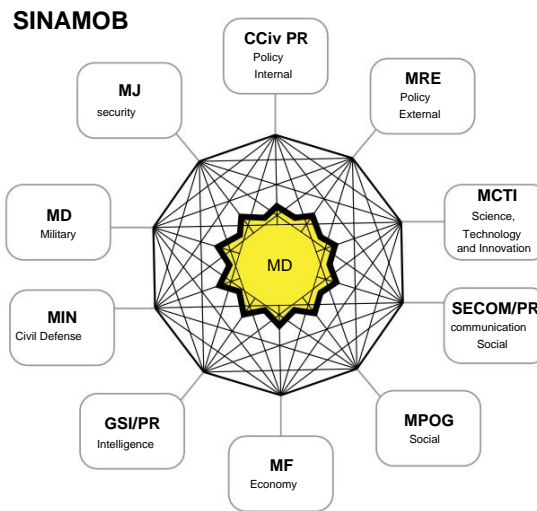
In order for the strategic actions to be properly prepared and executed, Law No. 11.631, of December 27, 2007, created the National Movilización System (SINAMOB), a set of organizations that acts in an orderly and integrated manner to plan and carry out all of the national mobilization and demobilization stages.

When enacting the national mobilization, the Executive Power will specify the geographic space of the national territory in which it will take place and the necessary measures for its execution, among which are:

- Summon federated entities to join the national mobilization effort.
- Reorient the production, marketing, distribution and consumption of goods and use of services.
- Intervene in public and private production factors.
- Request and occupy goods and services.
- Summon civil and military personnel.

³² Movilización is foreseen in art. 22, item XXVIII, and art. 84, item XIX, of the Federal Constitution.

The mobility capacity has an intimate relationship with the concept of elasticity envisioned by the National Defense Strategy. Elasticity refers to the ability to quickly increase the human and material resources available for the Defense. This concept joins the question of the military service, which is a National Defense instrument capable of providing the reserve personnel required by the military mobilization.



National Mobilization System

The Military Service

The Obligatory Military Service is an essential element for the mobilization of the people Brazilian in defense of national sovereignty.

The legal order of military service in Brazil is present in the Federal Constitution, in the Law of Military Service, in the Law of Provision of Military Service for students of Medicine, Pharmacy, Dentistry and Veterinary and in the Law of Provision of Alternative Service³³. The Ministry of Defense is the central body of the Military Service.

According to the current system in Brazil, initial military service is mandatory for male citizens, even if they are allowed to choose to remain in active service.

Military service allows the Nation to form citizens with a civil spirit, giving them values of solidarity and justice, ethical principles and a sense of nationality. Meaning

³³ Alternative Military Service is understood as the exercise of activities of an administrative, assistance, philanthropic or even productive nature, which replace activities of an essentially military nature.

it is also an important instrument for affirming national unity.

The recruitment process is preceded by enlistment and comprises four distinct stages: invitation, selection, designation and incorporation or enrollment. The initial military service has a duration of

In Brazil, approximately 1.65 million young men achieve, annually, the age range destined for the provision of military service and approximately 90 thousand of them are admitted to the Armed Forces.

one year. The contingent is made up of registered and selected men at the age of 18 and doctors, pharmacists, dentists and veterinarians, of both sexes, who fall under the aforementioned Law.

From 2003 onwards, the stages of the recruitment process became the same for them. three Forces, unified within the scope of the Ministry of Defense.

At the end of the selection stage, the citizen may be assigned to provide military service in an organization of the Armada, the Army or the Air Force, being enrolled in one of the Organisms of Formation of the Reserve (OFR).

The Centers for the Preparation of Reserve Officers (CPOR) and the Nucleos for the Preparation of Reserve Officers (NPOR) are military training establishments that follow a line of war training, intended to train reserve officers.

The Tiros de Guerra are reserve training organizations, the Army's own, which enable those called up to perform initial military service in the municipalities where live. In this way, the young people summoned received military instruction, reconciling it with work and studies.



Distribution of War Shots by State

In addition to its undeniable efficiency as an element of social integration, the main objective of the military service is to provide the Armed Forces with trained groups to carry out specific tasks in a convenient manner on the battlefield.

It should be considered that the increasing technological complexity of armaments, as well as the fluidity of the circumstances involved in their use, generate ever greater demands on military personnel, which implies the need for the Fuerzas Armadas compuestas de hombres and women with high educational qualifications.

Defense Intelligence System (SINDE)

Law No 9.883, of December 7, 1999, establishes that the Ministry of Defense integrates the Brazilian Intelligence System (SISBIN), which must subsidize the Brazilian Intelligence Agency (ABIN) with specific data and knowledge related to the defense of the institutions and the national interests.

In this sense, in 2002, the Defense Intelligence System (SINDE) was instituted within the scope of the Ministry of Defense and the Armed Forces, with the aim of integrating the planning and execution actions of the intelligence activity of defense.

Developed with the aim of producing and protecting knowledge of interests of Defense and of a strictly technical and military nature, Defense Intelligence covers the following levels of

- Defense **Strategic** Intelligence - aimed at producing the knowledge necessary for the process of decision, as well as elaboration and conduction, at the highest level of military strategic planning, policies and plans in the national or international scope of interests of the National Defence.
- Defence Operative Intelligence - aimed at the production and safeguarding of the necessary *nocimientos* for the planning, conduction and support of campaigns and military operations, seeking to achieve strategic objectives involved in the areas of operations.

Based on a systemic relationship without a bond of subordination, SINDE is composed of the highest level intelligence organizations of the Ministry of Defense and the Armed Forces. This System guides its activities through resolutions of the Chamber of Foreign Affairs and National Defence³⁴, which is chaired by the Chief Minister of the Institutional Security Office of the Presidency of the Republic (GSIPR), and resolutions of the Council of Government in, presided over by the President of the Republic or, by his determination, by the Minister of State Chief of Staff, in addition to being integrated by the Ministers of State and by the holder of the Personal Cabinet of the President of the Republic.

³⁴ The Chamber is in charge of formulating public policies and guidelines on matters related to the areas of Foreign Affairs and National Defense of the Federal Government.



Unión frigate on mission at the Fuerza Tarea Marítima (FTM) – Unifil, Lebanon, April/2012

Brazil Navy

The origin of the Brazilian Armada dates back to July 28, 1736, when, by order of D. João V, King of Portugal, the Secretary of State for the Negotiations of the Armada and Overseas Dominions was created, directly subordinated to the King.

In 1808, as a result of the Napoleonic invasions, the Portuguese Royal Court moved to Rio de Janeiro, and the prince regent, D. João VI, nominated D. João Rodrigues de Sá y Menezes, Count of Anadia, holder of that title. Secretary, formalizing his transfer to Brazil.



In 1821, before returning to Portugal, D. João VI indicated to the head of the square Manoel Antônio Farinha as Secretary of State for the Office of the Navy in Brazil.

Despite the relevance of the mandate described, which consolidated the legal framework of the institution, it is important to mention that the first performance of a Brazilian commanding a naval group, in a typically military mission, was recorded 123 years earlier.

Consequently, in 1613, within the context of the French occupation in the state of Maranhao, Jerônimo de Albuquerque, born in the city of Olinda, state of Pernambuco, commanded an expedition of approximately 100 men aboard vessels built here and known as “caravelões”, which in Spanish would correspond to “gran des carabelas”. This expedition, leaving from the city of Recife and with the collaboration of the indigenous people, played a prominent role in the expulsion of the invaders.

The maritime interests of Brazil are historic and broad. The sea was the path of discovery, colonization, trade, foreign invasions and consolidation of independence, in addition to being an arena for the defense of sovereignty in various episodes, including two world wars.

In the 21st century, the geopolitical complexity of the Country and the importance of the sea in the desiring roll of Brazil lead to multiple scenarios for the performance of the Naval Fuerza, which, added to the immense maritime extensions, set great challenges for the fulfillment of the mission of the Armada of Brazil.

mission

It is up to the Navy to prepare and use the Naval Power in defense of the Homeland, in the terms of the Federal Constitution and of the Laws, to act to guarantee the constitutional powers and, on the initiative of any Power, to act to guarantee the law and the order. The Navy also acts in actions under the aegis of international organizations and in support of the country's foreign policy. The Force also fulfills subsidiary attributions provided for by law, with emphasis on those related to the "Maritime Authority", to safeguard national interests.

To fulfill its tasks, the Navy directs its operating and support bodies to compliance with the policies established by the Ministry of Defense.

The Armada has as specific subsidiary attributions: • Guiding and controlling the Merchant Marina and its related activities in what interest to the National Defence.

• Provide navigation security on waterways. • Contribute to the formulation and conduct of national policies related to the sea. • Implement and monitor compliance with laws and regulations in the sea and inland waters in coordination with other bodies of the Executive Power, national or state. • Cooperate with federal bodies in the repression of crimes with national or international repercussions, in what concerns the use of the sea, inland waters and port areas, in the form of logistical support, intelligence, communications and instruction.

Due to the specificity of these attributions, the Commander of the Navy is covered, by Ley, as "Maritime Authority"³⁵. The attributions of the Maritime Authority are related to themes linked to Maritime Power³⁶.

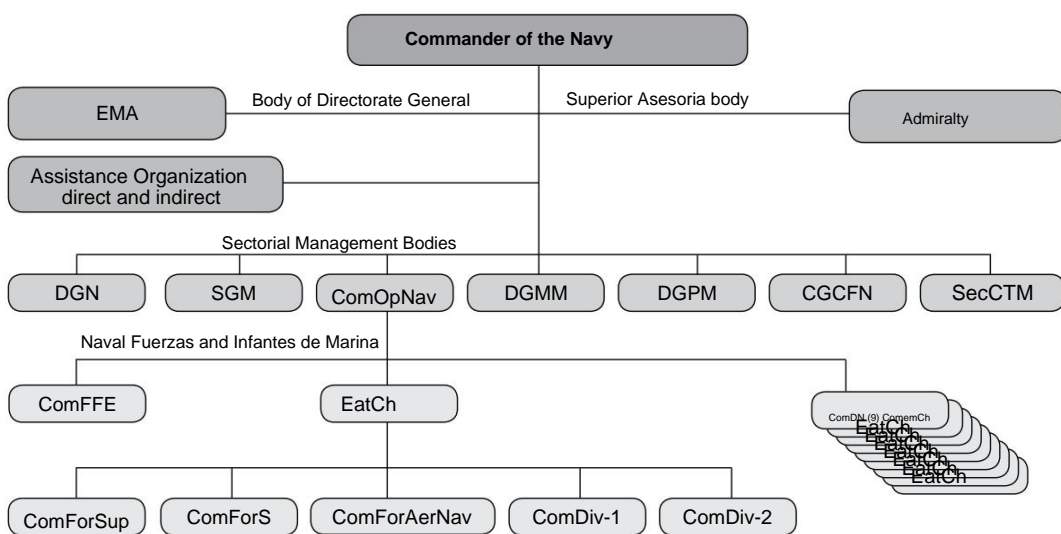
³⁵ Autoridad Marítima — public power exercised in maritime spaces under national sovereignty or jurisdiction.

³⁶ The Maritime Power is the part of the National Power that is made up of everything that, in some way, is related to navigation, sea and inland waters, water transport, fishing, exploitation of wealth at the bottom of the sea, related industries, government policies that los rigen y, principally, deal with the maritime vocation of the town. El Poder Naval represents the "armed arm" (the military branch) of maritime power.

Organization and operative means

El Comando de la Armada has the following organizational structure:

- a) An Organismo de Dirección General, el Estado Mayor de la Armada (EMA).
- b) An Organismo de Auxilia Superior, el Almirantazgo.
- c) Six Organizations of Direct and Immediate Assistance to the Commander of the Navy:
 - Cabinet of the Commander of the Navy (GCM).
 - Center for the Intelligence of the Navy (CIM).
 - Secretariat for Internal Control of the Navy (SecCIM).
 - Fiscalía Especial de la Armada (PEM).
 - Secretariat of the Interministerial Commission for Sea Resources (SECIRM).
 - Center for Social Communication of the Armada (CCSM).
- d) Seven Bodies of Sectorial Management:
 - Naval Operations Command (ComOpNav).
 - Dirección General de Navegación (DGN).
 - General Secretariat of the Navy (SGM).
 - Directorate General of Material for the Navy (DGMM).
 - Dirección General del Personal de la Armada (DGPM).
 - Dirección General del Cuerpo de Infantes de Marina (CGCFN).
 - Secretariat of Science, Technology and Innovation of the Navy (SecCTM).



Armada organization chart

Naval Operations Command (ComOpNav)

El ComOpNav is responsible for the selection, training and use of the Naval Fuerzas, Aeronavales and Marine Infantes in military operations. It is composed of the Comando en Jefe de la Escuadra (ComemCh), the Comandos de los Distritos Navales (ComDN), the Comando de la Fuerza de Infantes de Marina de la Escuadra, the Comando del Control del Tráfico Marítimo and the Electronic Warfare Center of the Armada.

ComemCh is the core of the Brazilian Naval Power that has as its purpose the maintenance of subordinate commands in the highest level of equipment for naval operations and naval warfare actions. Le corresponds to ComemCh or “la Escuadra”:

- Plan the naval and naval air operations that are designated.
- Supervising, within the scope of the Squadron, the use of subordinate commands.
- Supervise administrative activities related to military organizations (OM).
- Submit to the higher ranks the rules relating to use, organization and maintenance of subordinate commands and establishments.
- Supervise, within the scope of the Escuadra, the use of the necessary resources for the presentation to the commands and subordinate bodies.

Administratively, the Squadron is subdivided into forces that are organized according to the operating environment in which its units operate, these forces are: the Command of the Surface Force (ComForSup), the Command of the Submarine Force (ComForS) and the Command de la Fuerza Aeronaval (ComForAerNav). To support ComemCh in the organization, execution and evaluation of naval operations assigned to the Escuadra, there are also two subordinate OM: el Comando de la Primera División de la Escuadra (ComDiv-1) and el Comando de la Segunda División de la Square (ComDiv-2).





The Escuadra, headquartered on the island of Mocanguê, Rio de Janeiro (RJ), has the support of the

- following bases and centers:
- Naval Base of Rio de Janeiro (BNRJ), to support ships.
 - Base Almirante Castro e Silva (BACS), to support submarines.
 - Centro de Entrenamiento Almirante Marques de Leao (CAAML), responsible for the training and professional improvement of the military personnel who provide operative measures, with emphasis on the result of naval operations and control of damages.
 - Centro de Apoyo a Sistemas Operativos (CASOP), designed to guarantee the preparation of combat systems for naval assets.
 - Small Ship Maintenance Center (CMEM).

The naval medios de la Escuadra are presented next.


Class designation del buque	Type quantity	Nombre de los buques de clase	Photograph
São Paulo	Buque Aerodrome 1	A-12 Sao Paulo	
Niterói	frigate 6	F-40 Niteroi F-41 Defender F-42 Constitution F-43 Liberal F-44 Independence F-45 Union	
greenhalgh	frigate 3	F-46 Greenhalgh F-48 Bosisio F-49 Rademaker	
Inhaúma	Corvette 4	V-30 Inhaúma V-31 Jaceguai V-32 Julio de Noronha V-33 Frontin	
barroso	Corvette 1	V-34 Barroso	
tupi	Submarine 4	S-30 Tupi S-31 Tamoio S-32 Timbira S-33 Tapajo	

Class designation del buque	Type quantity	Nombre de los buques de clase	Photograph
Tikuna	Submarine 1	S-34 Tikuna	
Felinto Perry	Buque de Ayuda submarine 1	K-11 Felinto Perry	
Mattoso Maia	bouquet of landing of Combat Cars 1	G-28 Mattoso Maia	
Garcia D'Avila	bouquet of landing of Combat Cars 1	G-29 Garcia D'Avila	
Admiral Saboia	bouquet of landing of Combat Cars 1	G-25 Admiral Saboia	
Ceará	bouquet of disembark darsena 1	G-30 Ceará	

Designation of the class of the bouquet	Type quantity	Nombre de los buques de clase	Photograph
Admiral Gastao Motta	Tank Buque 1	G-23 Admiral Gastao Motta	
marajó	Tank Buque 1	G-27 Marajó	
Brazil	Buque Escuela 1	U-27 Brazil	
White Swan	Sailboat Buque 1	U-20 White Swan	

Medios Aeronavales de la Escuadra

The Comando de la Fuerza Aeronaval, headquartered in the town of Sao Pedro da Aldeia (RJ), has as subordinates, among other military organizations, a naval air base, five squadrons of helicopters and a squadron of intercept and attack planes, as the graphic representation the continuation.

Designation	Type	quantity	Photograph
AF-1/AF-1A skyhawk	attack aircraft	23* * will be disabled 11 aircraft up to 2017	

designation	Type	quantity	Photograph
SH-3A/B Sea King	Antisubmarine Helicopter	5* * will be deactivated until 2015	
AH-11A Super Lynx	Clearing Helicopter and Attack	12	
UH-14 Super Puma	General Purpose Helicopter	6	
UH-15 Super cougar	General Purpose Helicopter** ** Inserted in the Project Construcción del Nucleus of Naval Power	1* * Will be received 15 aircraft until 2017	
UH-12/13 Squirrel	General Purpose Helicopter	15* * Will be disabled an aircraft until 2013	
IH-6B bell jet ranger	instruction helicopter	16	
MH-16 sea hawk	Multipurpose Helicopter** ** Inserted in the Project Construcción del Nucleus of Naval Power	4* * Will be received 2 aircraft up to 2014	

Los Naval Districts

The Commandos de Distritos Navales (ComDN) have the purpose of contributing to the fulfillment of the tasks of responsibility of the Navy, in their respective areas of jurisdiction. Son, in total, new ComDN, with headquarters in the cities of Rio de Janeiro (RJ), Salvador (BA), Natal (RN), Belém (PA), Rio Grande (RS), Ladário (MS), Brasilia (DF), Sao Paulo (SP) and Manaus (AM).









Geographical Distribution of Major Commands and Main Organizations


Medios Navales Districtales


Los Comandos de Distritos Navales poseen medios navales operativos, which are distributed buyen entre las jurisdicciones de los Distritos, y constant en la tabla a continuación.

Class designation del buque	Type quantity	Nombre de los buques de la clase	Photograph
amazon	patrol boat Oceánico 3	P-120 Amazon * P-121 Apa P-122 Araguari * P-120 received in 2012, the others until 2013	
Grajaú	Patrol Ship 12	P-40 Grajaú P-41 Guaiba P-42 Grauna P-43 Goiana P-44 Guarajá P-45 Guaporé P-46 Gurupá P-47 Gurupi P-48 Guanabara P-49 Guaruja P-51 Guaratuba P-52 Gravataí	
macaé	Patrol Ship 2	P-70 Macae P-71 Macao	
Piratini	Patrol Ship 6	P-10 Piratini P-11 Pirajá P-12 Pamper P-13 Paraty P-14 Penedo P-15 Poti	
bracuí	Patrol Ship 4	P-60 Bracuí P-61 Benevente P-62 Mouth P-63 Babitonga	
Pedro Teixeira	patrol boat River 2	P-20 Pedro Teixeira P-21 Raposo Tavares	


Class designation del buque	Type quantity	Nombre de los buques de la clase	Photograph
roraima	patrol boat River 3	P-30 Roraima P-31 Rondônia P-32 Amapá	
Piraim	Warning of River Transport 1	U-29 Piraim	
paraguassu	Buque Transport river 1	G-15 Paraguay	
Potengi	Support Buque River Logistics 1	G-17 Potengi	
Parnaíba	Monitor 1	U-17 Parnaíba	
Triumph	towing machine high seas 3	R-21 Triton R-22 Trident R-23 Triumph	

Class designation del buque	Type quantity	Nombre de los buques de la clase	Photograph
Admiral Guilhem	towing machine High Seas 2	R-24 Almirante Gulhem R-25 Almirante Guillobel	
Imperial sailor	Corbett 2	V-15 Imperial Mariner V-19 Caboclo	
Aratu	boat to Barrido 6	M-15 Aratu M-16 Anhatomirim M-17 Watchtower M-18 Araçatuba M-19 Abrolhos M-20 Albardão	
For	Auxiliary Buque 1	U-15 Pará	
Oswaldo Cruz	bouquet of attention hospitality 2	U-18 Oswaldo Cruz U-19 Carlos Chagas	
Doctor Montenegro	bouquet of attention Hospitality 1	U-16 Doctor Montenegro	

Class designation del buque	Type quantity	Nombre de los buques de la clase	Photograph
lieutenant Maximian	bouquet of attention Hospitality 1	U-28 Lieutenant Maximiano	
Soares de Meirelles	Attention Bucket Hospitality 1	U-21 Soares de Meirelles	
Amorim do Valle	Bouquet Hydro oceanographic 1	H-37 Garnier Sampaio	
Lighthouse Mario pebbles	Beacon Buque 1	H-26 Farolero Mario Seixas	
Commander varella	Beacon Buque 4	H-18 Commander Varella H-19 Lieutenant Castelo H-20 Commander Manhães H-25 Lieutenant Boanerges	
Alférez Moura	Warning of Investigation 1	U-14 Alférez Moura	

Designation of the class of the bouquet	Type quantity	Nombre de los buques de la clase	Photograph
Alfred Nascimento	Instruction Notice 3	U-10 Alférez Nascimento U-11 Ensign Jansen U-12 Brito Midshipman	

District Air and Naval Means

designation of it Aircraft / Type	location	quantity	Photograph
UH-12 Squirrel helicopter of General Employment	5th Naval District	3	
	6th Naval District	3	
	9th Naval District	5	

El Cuerpo de Infantes de Marina (CFN)

The Brigada Real de la Armada was the origin of the Body of Infantes from Marina de Brasil. Created in Portugal on August 28, 1797, by order of the Queen Dña. Maria I, who arrived in Rio de Janeiro on March 7, 1808, together with the Portuguese royal family that migrated to Brazil.

The fire bautismo³⁷ of the Infantes de Marina occurred during the expedition to the French Guayana (1808/1809), with the capture of Cayena³⁸. In 1809, D. João Rodrigues Sá y Menezes, Count of Anadia, at the time Minister of the Navy, determined that the Royal Brigade of the Navy would occupy the Fortress of São José, on the "Ilha das Cobras", from where the Close el Comando General del Cuerpo de Infantes de Marina has its General Headquarters.

After the return of king D. João VI to Portugal, a Batallón de la Brigada Real de la Armada remained in Rio de Janeiro. Since then, marine soldiers have been present in all important episodes of the History of Brazil, whether in the fights for the solidification of Independence, in the campaigns of Plata or in other armed conflicts in which the country has participated.

Over the years, the Infantry Corps of Marina received different denominations: Batallón de Artillería de la Armada de Rio de Janeiro, Corpo de Artillería de la Armada, Batallón Naval, Corpo de Infantería de la Armada, Naval Regiment and, finally, since 1932, Cuerpo de Infantes de Marina. In the 1950s, the body was structured to

³⁷ First participation in combat.

³⁸ At that time Brazil was still an integral part of the kingdom of Portugal.

operative use as a landing force and became part of the Armada destined for actions and land operations inherent to a naval campaign.

It is a professional and voluntary troop, in permanent use condition, of an expeditionary nature par excellence, essential for the defense of naval and port installations, as well as archipelagos and oceanic islands in Brazilian jurisdictional waters. Likewise, it guarantees the control of the margins of the river routes during riverside operations and acts in international peace operations and humanitarian actions.

Organization

El Cuerpo forms part of the organization of the Navy, through the General Command of the CFN (CGCFN) and its operational component, the Command of the Infantry Force of Marina de la Escuadra (ComFFE), the latter subordinate to the Command of Operations Marines.

The CGCFN has the purpose of contributing to the preparation and application of the Naval Power in what concerns the specific activities of the CFN related to personnel, material and detail of the doctrine.

The Fuerza Infantes de Marina de la Escuadra (ComFFE) is an organized Fuerza, trained and equipped to carry out amphibious and land operations of limited scope, which correspond to the launching of a military force from the sea, coming from a Naval Fuerza, in buques or embarkations and that include the disembarkation in a hostile or potentially hostile beach.

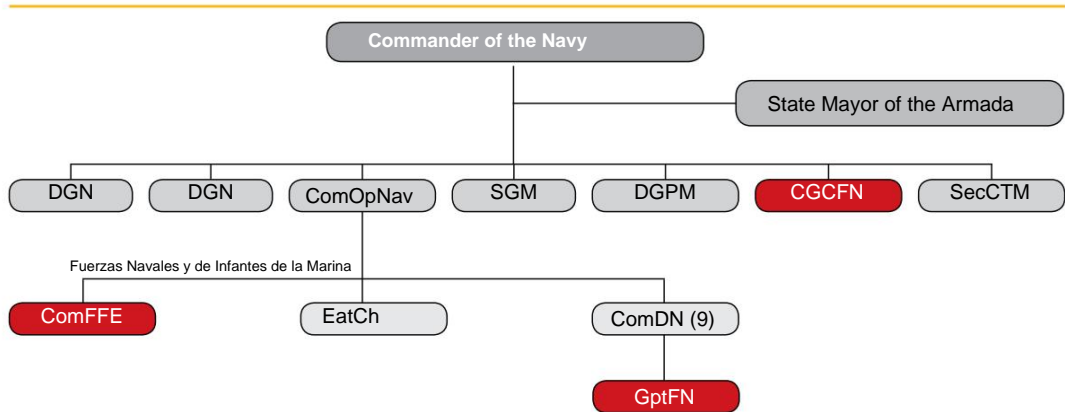
An amphibious operation is characterized by the integration of trained forces, organized and equipped with different combat functions. These operations, despite the fact that they generally end on land, are proposed to obtain the objectives of a naval campaign.



Infants from Marina on an exercise to disembark on the beach

The ComFFE is structured in the following way:








- Amphibian Division - organized to carry out amphibious and terrestrial operations, it has as main battalions: three of Infantry, one of Artillery, one of Armored, one of Control Aerotático and Antiaircraft Defense and the one of Command and Control.
- Refuerzo Troop - organized to provide combat support, essential in the missions carried out by the Infantes de Marina. It has as main battalions: one Logistic, one of Engineering and the one of Amphibious Vehicles.
- Landing Troop - organized to accompany, without interruption, potential crisis situations, enabling ComFFE to be agile in the organization, activation and implementation of its Operative Groups of Infantes de Marina (GptOpFuzNav).
- Batallón de Operaciones Especiales de Infantes de Marina - special operations unit, used in hostile environments, with the purpose of destroying or damaging relevant objectives in defended areas, capturing or retrieving personal material, resuming installations, obtaining information, misleading and producing psychological effects.
- Base de Infantes de Marina del Rio Meriti - support unit that provides personnel and material for carrying out the necessary command, control and administration.








Representación de los Infantes de Marina en el Organigrama de la Armada

The Grupos de Infantes de Marina (GptFN) are operative units destined to provide security to naval installations and conduct limited operations, compatible with their staff, in support of the Grupos Operativos de la Fuerza de Infantes de Marina de la Escuela adra. The GptFN are located in the headquarter cities of the Naval Districts to which they are subordinated, with the exception of the 8th Naval District which does not have a Grupo de Infantes de Marina.

The Medios y los Armamentos de los Infantes de Marina are represented next.

designation	Type	quantity	Photograph
SK-105 Kuerassier	Armored Vehicle	18	 A photograph of an SK-105 Kuerassier tank, a German main battle tank, shown in a field. The tank is green and has a long barrel.
M-113	Armored vehicle over Orugas	30	 A photograph of an M-113 armored vehicle, a tracked military vehicle, shown in a field. The vehicle is green and has a turret.
Piranha IIIC	Armored Vehicle on Wheels	18	 A photograph of a Piranha IIIC armored vehicle, a wheeled military vehicle, shown in a field. The vehicle is green and has a turret.
AAV-7A1 / LVTP-7	Amphibious Armored Vehicle on Orugas	26	 A photograph of an AAV-7A1 amphibious armored vehicle, a tracked military vehicle, shown in a field. The vehicle is green and has a turret.
L-118 Light Gun (Towed 105mm)	Artillery	18	 A photograph of an L-118 Light Gun, a towed artillery piece, shown in a field. The gun is black and has a long barrel.
M-114 (Towed 155mm)	artillery	6	 A photograph of an M-114 towed artillery piece, a large artillery gun, shown in a field. The gun is black and has a long barrel.
Mortar M-60 BRANDT (60mm)	infantry	103	 A photograph of a mortar M-60 BRANDT, a mortar, shown in a field. The mortar is black and has a long barrel.

designation	Type	quantity	Photograph
Mortar 81mm	infantry	26	
K6A3 (Mortar 120mm)	artillery	6	
L/70 BOFORS 40mm	Antiaircraft Artillery	6	
RBS-56 Bill (Anti-tank Missile)	light armament	18	
antiaircraft missile MISTRAL	light armament	8	




Directorate General of Navigation (DGN)





Organization

The Directorate General of Navigation has the purpose of contributing to the preparation and application of Naval Power and Maritime Power, in terms of activities related to maritime matters, navigation safety, hydrography, oceanography and theory. The following specialized directorates are subordinated to this General Directorate: Dirección de Puertos y Costas (DPC) and Dirección de Hidrografía y Navegación (DHN).

The Directorate of Ports and Coasts is responsible for the guidance and control of the Merchant Marina and related activities in terms of National Defence, contributing to the safety of water traffic; the prevention of contamination by vessels, platforms and their support stations; the formulation and execution of national policies related to the sea; the implementation and supervision of compliance with laws and regulations in the sea and inland waters; and the qualification and qualification of personnel for the Mercante Marina and related activities.

The Dirección de Hidrografía y Navegación has as a mission to support the application of the Naval Power through activities related to hydrography, oceanography, cartography, meteorology, navigation and nautical signalization; guarantee the quality of the safety activities of navigation in the maritime area of interest in Brazil and in the inland navigable routes; and to contribute to national research projects in Brazilian jurisdictional waters and to those projects that result from international commitments. To carry out its activities, the naval means presented below are used.

Designation of the class of the bouquet	Type	quantity	Photograph
Admiral Grace Spider	Lighthouse Hydro-Oceanographic Buque	1	
Ary Rongel	Oceanographic Support Ship	1	
Antares	oceanographic ship	1	

Designation of the class of the bouquet	Type	quantity	Photograph
Admiral Maximian	polar ship	1	
Sirius	Hydrographic Buque	1	
Amorim do Valle	Hydro-Oceanographic Bucket	1	
Crucero del Sur	Hydro-Oceanographic Bucket	1	

Capabilities

The Armada currently has a staff of approximately 60,000 soldiers. It plans to increase it gradually until 2030 to adapt to the consequences of the National Defence Strategy, giving priority to meeting the guidelines of the Defence Articulation and Equipment Plan (PAED), in particular the programs: Nuclear de la Armada (PNM), Submarine Development (PROSUB) and Armada Reequipment (PRM).

In any situation the Navy must be able to fulfill the four basic tasks of Naval Power: deny the use of the sea to the enemy, control maritime areas, project power over the land and contribute to deterrence.

A Naval Fuerza must be able to effectively provide its own defence, even against air threats, a situation in which it is indispensable to have aviation on board from an aircraft carrier. The ability to control maritime areas is not achieved solely with the use of escort ships, which are the main means for achieving this, which is why the use of intercept and attack aviation is also important.

As a result, a Naval Force with different types of ships, captained by an aircraft carrier, has characteristics of mobility, permanence, flexibility and versatility that enable it to fulfill a wide range of missions, which range from humanitarian and peace to the typical crisis maneuver or armed conflict.

A well-equipped Naval Power provides, at a political decision-making level, the ability to grade the application of force, in the appropriate time and place, and with the intensity proportional to the intended purposes, which represents a very effective deterrent element .

Since the 1970s, the Navy has found that having conventional submarines on the iba is sufficient to face possible threats in the South Atlantic, the immediate environment of its naval operations. In order to fulfill its constitutional mission of defending the country's sovereignty, territorial integrity and maritime interests, the Force also needs to have nuclear-powered submarines available, whose exceptional mobility guarantees the advanced defense of the widest maritime border.

The Surface Naval Fuerza will have both medium and large sized ships, capable of operating and remaining for a long time at sea, as well as smaller sized vessels, dedicated to patrolling the coastline and the main navigable rivers in Brazil.

To guarantee readiness and safeguard Brazilian sovereignty and interests, both in the country as well as abroad, the Navy will maintain forces in conditions of immediate use (Rapid Use Force) in naval warfare operations and actions, in periods of peace or in situations of crisis and conflict.

The Navy, using its naval, air and naval means and Marine Infantrymen, has the conditions to carry out non-combatant evacuation operations and peace operations and humanitarian actions, projecting an amphibious troop, regardless of the degree of hostility and type of mission that will be carried out .

Strategic vision and articulation

The Armada directs its activities in order to be a modern, balanced and balanced Force³⁹, which has naval, air-naval and Marine Infantry means compatible with the political and strategic insertion of the Country in the international scenario.

³⁹ A Fuerza equipped with up-to-date measures is understood as modern, with up to 20 years in activity. For him, quality should be favored and quantity discarded. The balance means the development of activities that guarantee the simultaneous use, both in the sea and in inland waters. The balance refers to the capacity to carry out, gradually, the four basic tasks of Naval Power and any of the operations and actions of naval warfare.

As a result of the National Defence Strategy, the Armada developed the Plan of Articulation and Equipment (PAEMB), aligned, at the level of the Ministry of Defence, with the Plan of Articulation and Equipment of Defence (PAED), which will be detailed in greater detail in chapter 5.

In the strategic conception of the Force, the availability of nuclear submarines means adding a new dimension to the Brazilian Naval Power, guaranteeing its capacity of deterrence at the height of its constitutional mission.

In the design of the articulation projects, procurement and modernization of means and equipment of the Armada, the following premises were considered, adopted from the guidelines and guidelines for the structure of the Force established in the National Defense Strategy:

- The cybernetic, space and nuclear sectors are decisive for the National Defence. • The task of denying the use of the sea to an enemy guides the maritime strategy to defend the country. • The reconfiguration of the midfielders of the Fuerza must be balanced between the components submarine, surface and aerospace.
- The prioritization of the control of maritime areas on the fringe that goes from the city of Santos (SP) to Vitória (ES) and in the area of the mouth of the Amazon River.
- The Force will be organized around capabilities, under the aegis of monitoring/control, mobility and presence, in order to respond promptly, through a strategic mobility with operative capacity to monitor the sea from space.
- The staff will be repositioned, having to be more present in the region of the mouth of the Amazon river, the borders and the great river basins of the Amazon and Paraguay-Paraná rivers.
- The capacity to deal with peacekeeping operations, humanitarian actions and international search and rescue commitments should be expanded.
- Brazil will design and manufacture its conventional or nuclear powered submarines, in addition to the surface, Infantes de Marina and aeronavales.
- The Armada is organized and articulated in order to facilitate the carrying out of operations joint and singular.
- The Armada must act, as a priority, within a strategic and defensive posture.

Based on the previous assumptions, projects of interest⁴⁰ were created, which will be carried out in a short to long term time frame. Some of them are listed continuously, without obeying order of importance, and are considered priority and strategic by the Fuerza:

⁴⁰ The main projects and subprojects will be covered in more detail in chapter 5.

- Continuing the Navy's Nuclear Program. • Revitalize and reinforce the current means of the Armada. • Create a Second Squadron and a Second Armory of Infantes de Marina de la Esquadra with headquarters in the North/Northeast (includes naval base, naval air base, Infantes de Marina base and supply base). • Increase the current Submarine Force, with the incorporation of conventional means (S-BR) and nuclear propulsion (SN-BR). It highlights the Submarine Development Program (PROSUB), which includes the launch at sea, as of 2016, of four conventional submarines "Scorpène"⁴¹ and, as of 2022, one of nuclear propulsion; the construction of specific shipyards and naval bases; and the continuity of the Submarine Modernization Program (MODSUB) for the five conventional units of classes "Tupi" and "Tikuna".
- Structuring the surface forces to expand the control capacity of marine areas with means of coverage, mine countermeasures, logistical support and defense.
- Renovate the surface fleet primarily through the construction, in Brazil, of escorts, logistical support ships, patrol ships of various classes, airfield ships (aircraft carriers) and multipurpose ships.
- Recompose the Aeronaval Force with air resources that have the capacity to provide an aerospace defense in depth. • Resize the current contingent of the CFN with two forces of Marine Infantes from the square equipped with landing forces, one of the amphibious brigade type, in the area of the Primera Escuadra, and another of the amphibious unit type, in the area of the Segunda Square. • Structuring the Armada with coastal forces for the Amazon basin and the Pantanal. • Guarantee the means and the organizational structure necessary for the attention of the subsidiary attributions related to the Maritime Authority, with the implementation of the "Seguridad de la Navegación" Program, which provides for the creation and elevation of the category of captaincies of ports and their commissioners and agencies, and the construction of river patrol boats, river transport, hospital assistance and dedicated vessels.
- Increase the strength's capacity to meet international commitments of search and rescue.

⁴¹ The "Scorpène" submarines are conventional submarines, decir, with propulsion and energy generation from diesel-electric engines. They come from a French technology project that will be transferred to the Brazilian Navy, as an integral part of PROSUB.

- Equip the Navy with adequate means for participation in peacekeeping operations, humanitarian actions and in support of the National Civil Defense System.
- Implement the Management System of the “Blue Amazon”, for monitoring and surveillance within the Brazilian jurisdictional waters (AJB), with the aim of better training the Force for the control of maritime traffic of interest in the South Atlantic, guaranteeing the safety of vessels carrying out activities of strategic value, increasing search and rescue capabilities. • Modernize military communications resources and implement the integration of all command, control, intelligence, monitoring and communications subsystems.
- Increase the interoperability of the Maritime Traffic Information System (SISTRAM) with other international systems with the same purpose. • Expand the operational intelligence capacity directed to the Naval Power, increasing the exchange with national and international agencies, encompassing the knowledge and monitoring of the so-called “new threats”⁴².
- Obtaining, perfecting, disseminating and retaining the knowledge related to the design, construction, operation and maintenance of naval equipment, naval aircraft and Marine Infants.

Enseñanza - principales schools

Escuela Naval (EN)

La Escuela Naval was created in 1782, in Lisbon, Portugal, by means of a Carta Regia de la Reina Dña. María I, under the name of Academia Real de Guardiamarinas. Installed at a first moment in the Monastery of Sao Bento, it remained there until 1832 and, from then on, underwent numerous changes of installations, having functioned, even, on board ships. Finally, in 1938, he ended up settling on the island of Villegagnon, in the city of Rio de Janeiro.

Its upper level course lasts four years and forms officers of the Navy for the initial grades of the careers of the Cuerpos de la Armada (CA), Infantes de Marina (CFN) and Intendentes de la Armada (CIM). The majority of the plazas of the first year of the academic cycle of the Escuela Naval occupy the students from the Colegio Naval, located in Angra dos Reis (RJ), an institution of secondary education of the Navy whose purpose is to prepare students to join a la EN by means of a course of three years of duration. The other plazas are occupied by means of a selection process. At the end of the fourth year, the aspirant is declared a Guardiamarina (GM) and licensed in Naval Sciences.

⁴² Detailed in Chapter 2.



EN — Rio de Janeiro (RJ)

Almirante Wandenkolk Instruction Center (CIAW)

Created in 1945, the CIAW is located on the island of “Hoes”, Rio de Janeiro. es un training, improvement and postgraduate center for the officers of the Navy's Inge Corps (EN), the Navy's Health Corps (CSM), the Armada Auxiliary Corps (CAM) and the Complementary Cuadros (QC) de los Cuerpos de la Arma da, Infantes de Marina and Intendentes.

The Center trains, for the Navy's Health Corps, officers for the Doctors, Dental Surgeons and Health Support Teams. For the Cuerpo Auxiliar de la Armada, form officers in the Technical, Capellanes Navales, Auxiliar de la Armada and Auxiliar Infantes de Marina.

Specialization courses for Complementary Officers, Surface Improvement (in armaments, communications, electronics and machines, as postgraduate), Advanced Perfecting and Training of Volunteer Military Service Officers are also held there. special courses.

School of Naval Warfare (EGN)

Created in 1914 and located in the city of Rio de Janeiro, the Escola de Guerra Naval is an institution of senior military scholars whose purpose is to contribute to the performance of operational and administrative commissions by serving officers; to prepare them for functions of Estado Mayor; and to perfect them to exercise positions of command, leadership and direction in the highest ranks of the Armada.

At the EGN, the courses of Major State for Intermediate Officers and those of high military studies are taught (Curso de Estado Major for Senior Officers – CEMOS, Higher Course – CSUP and Course of Maritime Policy and Strategy – CPEM), all of which have an approximate duration of a year.

In addition to the courses, the EGN has a Center for Policy and Strategy Studies (CEPE), which seeks to complement, with harmony, the research activities carried out by the faculty.

Sao Paulo Study Coordination Center (CEMSP)

The Armada, for several years now, has been training its military engineers through an alliance with the University of Sao Paulo (USP) and for it maintains a Center for the Coordination of Studies (CEMSP) on the campus of this university. Liberal professionals from other technical areas are admitted to the Armada, such as health, law, education and social communication and those from the technological area, by means of a selection process of their own, and then carry out their basic military training at the Instruction Center Admiral Wandenkolk.

Schools of Grumetes (EAM)

Las Escuelas de Grumetes are destined to the formation of mariners for the Corps of Petty Officers of the Armada that are in the cities of Fortaleza, Recife, Vitória and Florianópolis. The Marineros Training Course has an approximate duration of one year and is taught in two terms.

Almirante Alexandrino Instruction Center (CIAA)

It originated in the Marine Corps (QM), created in 1836 in the city of Rio de Janeiro. He is responsible for the training and perfecting of non-commissioned officers with specialization, perfecting and special courses.

This Center trains specialized corporals and sergeants in the following areas: craftsmen (metallurgy, carpentry and mechanics), armament and cabinetry, administration, communication, electricity and electronics, machines, mechatronics and telematics.

Almirante Sylvio de Camargo Instruction Center (CIASC)

The CIASC has its origins in the Centro de Instrucción del Cuerpo de Infantes de Marina (CICFN), created in 1955. Located in Rio de Janeiro, it has the function of training and perfecting officers and non-commissioned officers of the Corps of Infantes de Marina. This Center offers specialization courses for corporals, training and perfecting courses for sergeants, perfecting and specialization courses in amphibious warfare for officers.

Scientific and technological institutions

Technological Center of the Navy of Sao Paulo (CTMSP)

The CTMSP, located in Iperó (SP), was created in 1986, with the mission of carrying out the activities of the Nuclear Program of the Armada. This program has the objective of training the Force to obtain mastery of the technological, industrial and operational processes of nuclear installations applicable to naval propulsion. It is composed of the Proyecto del Ciclo del Combustible, the Proyecto del Laboratorio de Generación de Energía Nucleoeléctrica and the Proyecto de Infraestructura. Among the projects supported by the Fomentadora de Estudios y Proyectos (FINEP) of the Ministry of Science, Technology and Innovation (MCTI), we highlight the development of permanent magnet motors for naval propulsion and the development project of precursor fiber for fiber manufacturing of carbon.

Institute of Studies of the Sea Almirante Paulo Moreira (IEAPM)

Created in 1985 and located in the city of Arraial do Cabo (RJ), the IEAPM is subordinated to the Secretariat of Science, Technology and Innovation of the Navy (SecCTM), and its mission is to plan and carry out scientific, technological and innovation in the areas of oceanography, meteorology, hydrography, marine biology, marine geology and geophysics, underwater acoustics, remote sensors, oceanographic instrumentation and coastal and ocean engineering, to contribute to obtaining models, methods, systems, equipment, materials and techniques that allow a deeper knowledge and effective use of the marine environment, according to the interests of the Navy.

Institute of Investigations of the Navy (IPqM)

Founded in 1959 in Rio de Janeiro, the Institute is a military service provider organization (OMPS) subordinated to the Secretariat of Science, Technology and Innovation of the Navy (SecCTM), and its mission is to develop the technologies required by the Armada da, concentrating its research and development activities on electronic warfare, weapons, underwater acoustics, digital systems and materials.

Center for Analysis and Naval Systems (CASNAV)

Created in 1975, CASNAV carries out the operational evaluation of naval systems and instruments, as well as research, projects and development, both of procedures and tactics of use for naval systems and instruments, as well as of digital support systems for the decision-making process. CASNAV also carries out the development of algorithms and systems applicable to the security of information and cryptology and information systems for administrative support.

Navy Hydrographic Center (CHM)

Created in 1998, with headquarters in the city of Niteroi, Rio de Janeiro, the Center originated after the restructuring of the Direction of Hydrography and Navigation. The CHM produces the necessary environmental information for the application of Naval Power, navigation safety and support for national marine scientific research projects. It is also responsible for maritime meteorology, nautical cartography, conducting oceanographic observations, maintaining the National Bank of Ocean Data (BNDO) and disseminating "Notices to Mariners", referring to international commitments under the responsibility of Brazil.

Exchange and cooperation with other countries

The Navy maintains a series of exchange and cooperation activities with other nations. Special emphasis is placed on support for the training of the Namibian War Armada. The most relevant areas are:

Military teaching area

- Foreign military in Brazil (2001-2011)

countries	Military	countries	Military	countries	Military
Southern Africa	7	USA	16	Nigeria	01
Germany	two	Francia	3	paraguay	35
Angola	22	Guatemala	1	Peru	40
Argentina	22	guyana	6	UK	1
Bolivia	15	Guinea Bissau	5	Republic Dominican	38
Chile	19	India	two	Surinam	7
Colombia	3	Mexico	6	Uruguay	6
Ecuador	28	Mozambique	10	Venezuela	51
spain	1	namibia	1,179	—	—

- Brazilian military abroad (2001-2011)

countries	Military	countries	Military	countries	Military
South Africa	1	China	3	Israel	1
Germany	4	Colombia	4	Italy	8
Argentina	34	spain	20	Norway	5
Belgium	3	USA	88	Portugal	21
Canada	9	Francia	14	UK	11
Chile	15	Netherlands	4	Serbia	1
Sweden	3	Switzerland	1	Uruguay	two

Military exercises in 2010/2011

Operation/Exercise	Host country	participating countries
ASPIRANTEX	Argentina and Uruguay	Brazil, Uruguay and Argentina
	Multinational exercise with the aim of perfecting the training of midfielders and strengthening the bonds of friendship	
PANAMAX	Panama	countries of the americas
	Multinational exercise that aims to strengthen ties of friendship between members of participating countries	
FRATERNAL XXVIII	Argentina	Brazil and Argentina
	Binational exercise aimed at training in attack, anti-submarine, clearance and logistical support operations	
PAMPAREX	Argentina and Uruguay	Brazil, Argentina and Uruguay
	Multinational exercise that has as objective to train means and reinforce bonds of friendship	
BRACOLPER	Colombia and Peru	Brazil, Colombia and Peru
	Multinational exercise that aims to strengthen ties of friendship with the countries visited	
CARIBBEAN	Central America countries	Brazil, Guyana, Puerto Rico, Antigua and Barbuda, Martinique and Surinam
	Multinational exercise that aims at training and representation visits to foreign ports	
PLATINUM	paraguay	Brazil and Paraguay
	Binational exercise that has as objective the training and the refuerzo of the bonds of friendship	
ATLANTIC VIGIAR	Caribbean Sea	Brazil, USA and United Kingdom
	Multinational exercise that has as objective to train means and reinforce bonds of friendship	
ACRUX V	Argentina, Paraguay	Brazil, Argentina, Bolivia, Paraguay and Uruguay
	Multinational exercise that aims to carry out a combined operation and strengthen friendship ties	

Operation/Exercise	Host country	participating countries
DIPLOMEX I	Uruguay	Brazil and Uruguay
	Binational exercise that aims to strengthen ties of friendship and exchange of nautical signaling activities	
DIPLOMEX II	Uruguay	Brazil, Uruguay and Argentina
	Multinational exercise that aims to strengthen ties of friendship and exchange of nautical signaling activities	
UNITS LII PHASE I and II	Brazil	Brazil, USA, Argentina and Mexico
	Multinational exercise that has as objective the training and the refuge of friendship ties	
FRATERNAL XXIX	Brazil	Brazil and Argentina
	Binational exercise aimed at training in attack, anti-submarine, clearance and logistical support operations	
JOINT WARRIOR	Scotland	Brazil, France, Canada, USA, United Kingdom, Turkey and Denmark
	Multinational exercise that has as its objective the training and the action of presence, in addition to strengthening bonds of friendship	
VENBRAS	Venezuela	Brazil and Venezuela
	Binational exercise that has as its objective the action of presence, in addition to strengthening bonds of friendship	
LI UNITS	Argentina	Brazil, Argentina, Mexico and USA
	Multinational exercise that has as objective the training and the refuge of friendship ties	
IBSAMAR-II	Southern Africa	Brazil, India and Southern Africa
	Multinational exercise that has as its objective the action of presence, in addition to strengthening bonds of friendship	
AFRICA 2010	west coast of africa	Brazil, Namibia, Angola, Santo Tomé and Príncipe, Nigeria and Ghana
	Multinational exercise that has as its objective the action of presence, the training, the cooperation and the refuerzo of the bonds of friendship	
EXCHANGE SUR	Peru	Brazil, Peru, Argentina, Canada, Chile, Colombia, United States, Ecuador, Mexico, Paraguay and Uruguay
	Multinational exercise that aims at training in joint operations	

Women in the Navy

Las mujeres began to occupy los cuadros de la Armada from 1980 onwards, when admission to the Force was regulated by law.

Over these years of service, the participation of women in the Navy has been a success. How officers and sub-officials act in different areas, such as medicine, dentistry, health support (nursing, psychology, nutrition, physiotherapy and pharmacy), engineering, architecture, civil construction, pedagogy, accounting, administration, law, history, communication social services, museology, library science, information technology, economics, social work, safety of water traffic, physical education, oceanography and meteorology, among many other areas necessary for the Navy.

Today, leading military organizations or their deputy directors; leading teams; managing projects and construction of warships and other works and administration of departments, divisions and sections in the administration, hospitals, technology centers, naval district commands and specialized departments of the Navy.

Especially in the Cuerpos de Salud and de Ingenieros Navales, the women in the Navy can rise to the rank of General Officer (Admiral), competing for it under identical conditions to those of the male officers belonging to the same Bodies.

On the 25th of November 2012, the Captain of the Sea and War Dalva Maria Carvalho Mendes, from the team of doctors of the Body of Health of the Armada, was the first Brazilian to be promoted to the rank of officer (Contraalmirante).



President Dilma Rousseff salutes the newly ascended Rear-Admiral Dalva



Armored Troop on Deployment

Brazilian army

The origin of the Brazilian Army (EB) dates back to the colonial period, to the principles of the formation of the nationality during the struggle against Dutch invaders. The first Batalla de los Guararapes, which took place on April 19, 1648, was the historic event that is considered the genesis of the Army. On that occasion, the forces that fought against the invaders were entirely formed by Brazilians (whites, blacks and Amerindians).

Already in 1822 the Army cooperated with the conquest of independence, supporting the Emperor D. Pedro I in the fight that consolidated the political emancipation of the Country.

Also during the imperial period, the Army fought in the Platine conflicts and contributed to guarantee the Brazilian territory. Led by Mariscal Deodoro da Fonseca, the EB was an essential piece for the installation of the republican regime in 1889.

Consequently, the Army plays and continues to play a relevant role in maintaining the unity and integrity of the Homeland. Its historical evolution is mixed with the Country. It is present throughout the national territory and demonstrates an identification with the public, which is represented there by men and women, without ethnic, religious or social class distinctions.



The country's geopolitical complexity causes multiple scenarios for the performance of the Earth Force, whose mission is conditioned by the continental dimensions of a territory characterized by a variety of geographic environments and an extensive border strip with 10 countries.

mission

The Army corresponds to the preparation of the Earth Force to fulfill its constitutional mission of Defense of the Patria and guarantee of the constitutional powers, the law and the order. Likewise, the Army must fulfill the general subsidiary attributions provided for in the complementary legislation, which are: cooperating with national development and Civil Defense, as well as supporting the country's foreign policy and participating in international peace and humanitarian aid operations.

The Army is an integral body of the National System of Protection and Civil Defense (SINPDEC) and participates, throughout the national territory, in relief actions and assistance to victims of natural disasters, whether in stages of rapid response or recovery and reconstruction.

In addition to the aforementioned missions, the Ejército has as particular subsidiary attributions:

- To act, by means of preventive and repressive actions, on the fringe of land borders, against cross-border and environmental crimes, separately or in coordination with other bodies of the Executive Power, carrying out, among others, surveillance actions; inspection of persons and land vehicles, vessels and aircraft; and prisons in flagrante delicto.

- Cooperate with federal agencies, when necessary, in the repression of crimes in the national territory, with logistical, intelligence, communications and instruction.
- Cooperating with federal, state and municipal public bodies in the execution of works and engineering services.

Organization and operative means

El Comando del Ejército has the following organizational structure:

- a) An Organism of General Direction: the Estado Mayor del Ejército (EME).
- b) Superior Assistance Organisms:
 - Alto Comando del Ejército.
 - Consejo Superior de Economía y Finanzas.

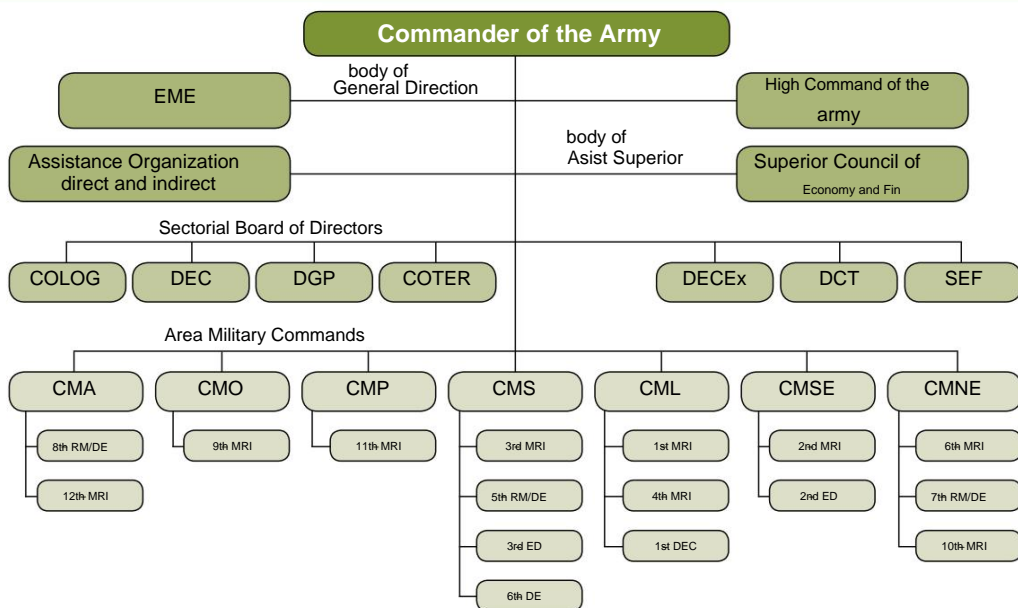
c) Six Organisms of Direct and Immediate Assistance to the Commander of the Army:

- Cabinet of the Commander of the Ejército (Gab Cmt Ex).
- Secretary General of the Army (SGEx).
- Army Intelligence Center (CIE). • Center for Social Communication of the Army (CComSEx). • Center for Internal Control of the Army (CCIEEx).
- Adjunct Legal Consultancy of the Army Command (CJACEx).

d) Seven Bodies of Sectorial Management:

- Logistic Command (COLOG). • Department of Engineering and Construction (DEC). • General Department of Personnel (DGP). • Department of Teaching and Culture of the Army (DECEx).
- Land Operations Command (COTER).
- Department of Science and Technology (DCT).
- Secretaría de Economía y Finanzas (SEF).

The Army counts today with 575 military organizations distributed throughout the country National territory. There are also 306 Tiros de Guerra in all regions of the country.



Organigram of the Brazilian Army

Earth Force

The Terrestrial Force is properly composed of seven Area Military Commands:

- Military Command of Amazonia (CMA).
- Comando Militar del Oeste (CMO).
- Altiplano Military Command (CMP).
- Comando Militar del Sur (CMS).
- Comando Militar del Este (CML).
- Southeastern Military Command (CMSE).
- Comando Militar del Nordeste (CMNE).



Geographical Distribution of Area Military Commands

Area of jurisdiction of the Military Commands

The Area Military Commands (CMiA), with the geographical distribution shown in the image, frame large operational commands: the Army Divisions (DE) and large logistical and administrative commands: the Military Regions (RM). La Fuerza Terrestre counts with seven Divisions of the Ejército and seven Military Regions, knowing that some are cumulative. The Comando Militar de Amazonia and the Comando Militar del Nordeste have, each one of them, a group of engineers.

Las Divisiones del Ejército incorporate the divisional brigades and artillery. The Ejército has 27 brigades and four divisional artillery (three in the CMS and one in the CML). The brigades can fit into the Army Divisions or be directly subordinated to the Area Military Commands.

The basic combat module is the Brigade, whose type can be variable, depending on the nature of its mission, the material used or the operating area to which it is assigned.

The Brigade is a large unit formed by the combination of weapons, capable of carrying out missions autonomously. It is usually composed of manoeuvre units and sub-units (Infantry and Cavalry), fire support (Artillería de Campaña), anti-aircraft defense (Artillería Antiaérea), combat support (Ingeniería and Comunicaciones) and logistical support (Intendencia, Salud and Materia Bélica). The brigades can receive, as needed, fractions of Army aviation, electronic warfare, electronic intelligence, psychological operations, special operations, anti-aircraft unit, in addition to support by Unmanned Air Vehicle (UAV).

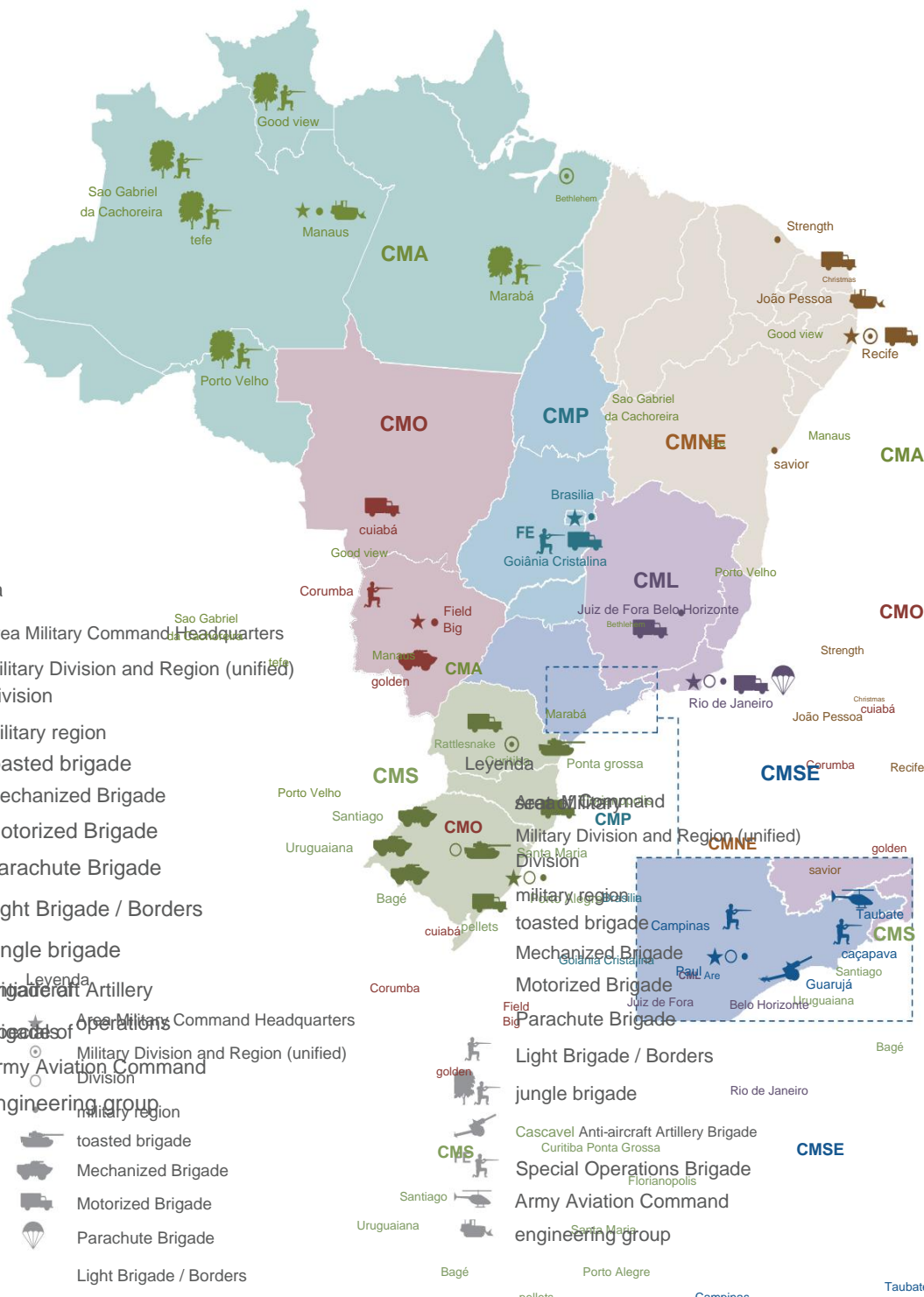
The Brigades are characterized by the flexibility of their organization and by the different types of weapons, ammunition, vehicles and equipment that, together with qualified personnel, are integrated to carry out complex operations.

The main types of brigade are:

- Light Infantry Brigades: Jungle Infantry Brigade, Border Infantry Brigade, Motorized Infantry Brigade, Light Infantry Brigade and Paratrooper Infantry Brigade.

The light brigades emerged due to the need for the Terrestrial Force to have elements endowed with great flexibility and operational capacity with conditions to move and act quickly and efficiently in any part of the national territory.

The light brigades are the troops most apt to carry out mobile air assault operations, carry out external defense actions in any part of the national territory and also act to guarantee the law and the order, in the terms of the Constitution.



Leyenda

- Area Military Command Headquarters
- Military Division and Region (unified) Division
- military region
- toasted brigade
- Mechanized Brigade
- Motorized Brigade
- Parachute Brigade
- Light Brigade / Borders
- jungle brigade
- Brigade of Artillery
- Special Operations
- Army Aviation Command
- engineering group
- military region
- toasted brigade
- Mechanized Brigade
- Motorized Brigade
- Parachute Brigade
- Light Brigade / Borders
- jungle brigade
- Cascavel Anti-aircraft Artillery Brigade
- Curitiba Ponta Grossa
- Special Operations Brigade
- Army Aviation Command
- engineering group

Articulation of the brigades

- Anti-aircraft Artillery Brigade
- Special Operations Brigade
- Army Aviation Command
- engineering group

- Medium Brigades: Mechanized Infantry and Mechanized Cavalry Brigades.

The medium brigades are equipped with armored vehicles on wheels and are used for external defense operations. During conflicts they can be used in awareness and security actions. Delay the action of possible aggressors by changing space for time, until the Terrestrial Force deploys troops better able to face opponents in better

- conditions.
- Heavy Brigades: Armored Cavalry Brigade and Armored Infantry Brigade.

The heavy brigades are the armored brigades. As a powerful and highly mobile force, during conflicts they are configured as a decisive element in the fight to have a rest. Your mission is to fall on the enemy to destroy or neutralize him, making fire, using maneuvers and shock action. On the battlefield they are particularly apt for highly mobile and deep offensive actions.

There are, likewise, three brigade combat modules⁴³, which are for specific

- use:
- Comando de Aviación del Ejército.
 - Special Operations Brigade.

- Antiaircraft Artillery Brigade.

The strategic conception of use and the operating environment are natural, organize and supply material for the combat elements of a Terrestrial Force. Starting from this premise, the brigades are organized and trained to act, in principle, in the strategic area for which they have a priority vocation.

operative means

In addition to human resources, Earth Force, to fulfill its constitutional mission, has the following equipment:

⁴³ The combat module of a Brigade is the smallest scale of the Land Force that brings together under a single command the main operating systems (maneuvering, intelligence, command and control, fire support, mobility, countermobility and protection, anti-aircraft defense and logistics) , allowing the combined training of weapons and services. This combination must integrate combat units (Infantry and Cavalry), combat support (Ingenieri, Artillery, Communications) and logistical support with specific tasks and that compose the operating systems. The combat module has the capacity to act independently and to remain in action.

designation	Type	quantity	Photograph
Leopard1A1	armored vehicles	128	
Leopard1A5	armored vehicles	250	
M60 Patton A3 TTS	armored vehicles	91	
M-41B/C	armored vehicles	112	
EE-9 Cascavel	armored vehicles	409	
EE-11 Urutu	armored vehicles	213	

designation	Type	quantity	Photograph
M113BR	armored vehicles	584	
VBTP-MR Guarani	armored vehicles	4* * Forecast acquisition of more 2,040 vehicles	
M108 105mm	artillery material	72	
M109 155mm	artillery material	40	
M114 155mm	artillery material	92	
L118 105mm	artillery material	36	

designation	Type	quantity	Photograph
M101 105mm	artillery material	320	 A photograph of an M101 105mm howitzer in a field. The gun is mounted on a four-wheeled carriage and is being operated by several soldiers in a grassy field.
Stars II	artillery material	20	 A photograph of a Stars II rocket launcher in a field. The launcher is mounted on a truck chassis and is firing a rocket, with a large plume of smoke and fire visible.
Oerlikon 35mm	artillery material	38	 A photograph of an Oerlikon 35mm anti-aircraft gun in a field. The gun is mounted on a four-wheeled carriage and is being operated by several soldiers.
Bofors 40mm L/70	artillery material	24	 A photograph of a Bofors 40mm anti-aircraft gun in a field. The gun is mounted on a four-wheeled carriage and is being operated by several soldiers.
mortar 120 mm	combat support	60	 A photograph of a 120mm mortar in a field. The mortar is mounted on a four-wheeled carriage and is being operated by several soldiers.
Eurocopter Cougar	helicopters	8	 A photograph of a Eurocopter Cougar helicopter on a tarmac. The helicopter is being serviced by several ground crew members.

designation	Type	quantity	Photograph
fennec/squirrel	helicopters	32	
black hawk	helicopters	4	
Eurocopter Panther	helicopters	32	
Caracal	helicopters	16	

Capabilities

The Ejército counts, today, with an approximate number of 200 thousand soldiers. The existence of a military power compatible with the political and strategic stature of the country is fundamental.

The Ejército develops capabilities, acting integrated with the other Forces or in isolation, to meet the three requirements simultaneously: to guarantee the defense of the territory, to project power in order to guarantee vital interests and to meet the demands of the foreign policy in favor of security, international peace and regional integration. These capabilities demand the existence of Forces in readiness to give an immediate response, aided by others that will be completed by the mobilization of material and human resources.

In tune with the lessons learned from contemporary wars and the trends of future conflicts, the Ejército develops its preparation based on capabilities, which provide the Institution with tools to effectively respond to the diffuse challenges that the future will present .

The new capacities considered priorities for the consolidation of the Army are:

- Terrestrial dissuasion compatible with the status of the country.
- International projection of the Army in support of Brazil's foreign policy.
- Acting in cyberspace with freedom of action.
- Fuerza Terrestre logistics readiness.
- Interoperability (with other Singular Forces) and complementarity (with other organizations and agencies).
- Integrated management at all levels.
- Effectiveness of military doctrine.
- Greater emphasis on the human dimension.
- Adequate presumptive flow.
- Defense products linked to operational capabilities.
- Systemic management of operational information.

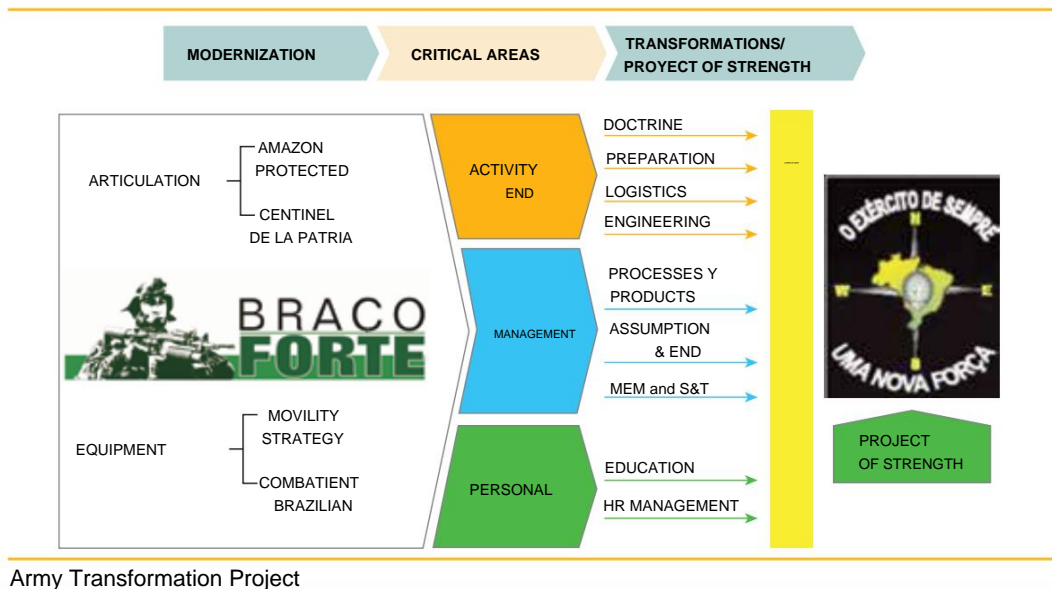
Strategic vision and articulation

The Army, a national and permanent public institution, is the fundamental instrument to guarantee the conditions of security and defense of the Brazilian State. The internal and external recognition of the Army's capacity to fulfill its mission, as one of the vectors of the military expression of national power, makes clear the relevance of Force to the society it serves. This relevance must be permanently supported by the understanding of the needs of the people, the demands of the State and the conditions imposed by the environment.

The Army has sought to modernize its equipment and weapons, as well as the skills of its members. In order to meet the strategic demands, it was verified the need for the Army on the ground to adapt and modernize, but also to adopt the concept of transformation. Transformation means developing different capabilities to fulfill new functions, whether they come from the current operating environment or even unidentified functions. This concept is deepened in chapter 5.

Coherently with the dynamic evolution of the conjuncture, the Army started a Process of Transformation that will be continuous and guided by a Proyecto de Fuerza. The Process and the Project form part of the Army Planning System.

Based on the National Defense Strategy, the State Mayor of the Army carried out a diagnosis of Earth Force and proposed actions to adapt it to the new demands of the State and Brazilian society, which resulted in the Brazo Fuerte Strategy (EBF) .



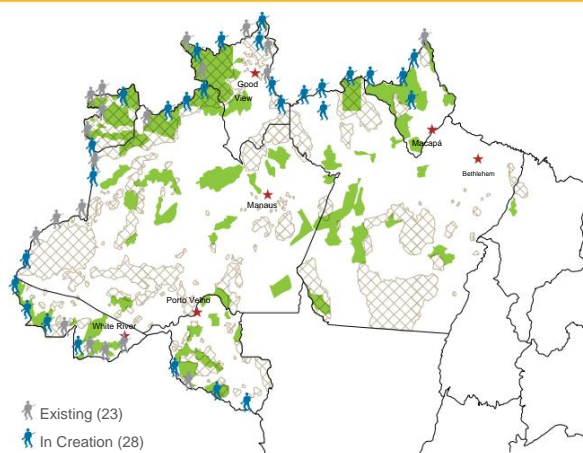
In the elaboration of the EBF, the following premises established in it were considered National Defense Strategy:

- El Ejército will be organized under the aegis of the trinomial monitoring/control, mobility and presence.
- You must have strategic mobility to respond quickly to any love naza or aggression.
- It will have to articulate its strategic reserves to allow the rapid concentration and the use of Forces.
- It will increase the presence of its units on the borders.
- It will have to be developed, to meet the requirements of monitoring/control, mobility and presence, the concept of flexibility in combat.
- You must develop the elasticity imperative, which is the ability to increase quickly damente the dimensioning of your troops.
- The Amazon represents one of the most interesting focuses for the defense and must be maintained as a high priority for the articulation and equipment of the troops.

The Brazo Fuerte Strategy is composed of the Articulation Plan, which deals with the placement of staff to meet the strategic concept of use, presence and dissuasion, and the Equipment Plan. The first one comprises the programs Amazonia Protegida and Centinela de la Patria and the second one includes the Movilidad Estratégica and Combatiente Brasileño programs. These planes are aligned with the Plan de

Defence Articulation and Equipment (PAED). Therefore, the EBF includes the following programs:

- Protected Amazon Program - set of projects aimed at strengthening the land military presence in the Amazon. It foresees the progressive implantation of new Pelotons Especiales de Frontera, in addition to the modernization of the existing ones. In a second stage, it establishes actions to strengthen the operational and logistical structure of the Military Command of the Amazon. Simultaneously, the Army foresees the implementation of the Integrated Border Tracking System (SISFRON), through the use of electronic measures and radars, such as the SABER M60 and others that are going to be developed, interconnecting military and civil systems, with the aim of optimizing the monitoring capacity of approximately 16,000 km of borders in the Amazon, Midwest and South regions.
- Centinela de la Patria Program - provides for the reorganization, adaptation and, above all, the completeness of the logistical and operational structures of the area's military commands. As has been said, the Military Command of Amazonia is included in the Amazonia Protegida Program.
- Strategic Mobility Program - is intended to meet the needs of replacement, completion and modernization of material to improve mobility, flexibility and interoperability with the other Armed Forces.
- Programa Combatiente Brasileño (COBRA) - comprises projects dedicated to research and the development of Defense products with Army structures and the Defense Industrial Base, prioritizing progressive nationalization and acquisitions in the domestic market.



Special Frontier Platoons

Due to the strategy and the programs mentioned above, priority projects were selected with the aim of transforming the Terrestrial Force, equipping its brigades with means of transport, equipment, armaments and supplies, in order to adapt the operational capacities to the demand and at the desired level of modernization. These projects are: Recovery of the Operating Capacity of the Terrestrial Force (RECOP), Cybernetic Protection System – Cybernetic Defense, Integrated System for Monitoring Land Borders (SISFRON), Integrated System for the Protection of Critical Land Strategic Structures (PROTEGER), New Family of Armored Vehicles on Nationally Manufactured Wheels (Guaraní), Anti-Aircraft Defense System and ASTROS 2020 Missile and Rocket Systems, which will be detailed in chapter 5.

Enseñanza — principales schools

Agulhas Negras Military Academy (AMAN)

La AMAN originated in 1792 with the creation, in Rio de Janeiro, of the Real Academia de Artillería, Fortificación y Diseño, the first military school of the Americas. During the 19th century, it had several denominations: Academia Real Militar, Academia Militar Imperial and Academia Militar de la Corte. From 1906 to 1910 he worked in Porto Alegre, at Escuela de Guerra, and in 1913 at Escuela Militar do Realengo (RJ). Just on the 1st of January 1944, it settled in its permanent headquarters in Resende (RJ) and was called Escuela Militar de Resende. From 1951 passed to call Academia Militar de Agulhas Negras.

The Academy is the teaching establishment that trains combatant officers in the Army's career. In the training course, at a higher level, activities are carried out that are based on the development of attributes necessary for the military profession. It is a five-year course, the first one takes place at Escuela Preparatoria de Cadetes del Ejército (EsPCEEx), located in Campinas (SP), and the other four at AMAN.

Its curriculum plan includes disciplines related to military, exact and human sciences. At the end of the course, the graduate is declared a lieutenant (or second lieutenant, in some countries) and receives a diploma in Military Sciences. Admission to AMAN is done exclusively through a national selection test for ESPCEEx.

The great idealizer of AMAN was Mariscal José Pessôa Cavalcanti de Albuquerque, who chose the place for the new headquarters, elaborated the project making it a reality and rescued the title of “cadete”, which had been abandoned at the time of the Proclamation of the Republic, the historic uniforms have also been adopted and the Espadín de Caxias has been created.



AMAN - Resende (RJ)

The AMAN courses aim to form a basic military personality, with a solid ethical structure and strong leadership attributes, leadership, initiative, discipline, responsibility and the spirit of teamwork. In the activity of teaching and learning, the cadet develops humanistic, scientific and technological knowledge necessary for the continuation of the career.

At the Academy, the cadet receives a technical and military base, through instructions and training exercises, so that, as a future officer, he can exercise the functions of commander and leader of small groups (platoon and section) and subunits (company, battery or square).

School of Official Improvement (EsAO)

Founded on April 8, 1920, by the then Minister of War, Dr. Joao Pandia Calógeras, the Escuela has as a mission to perfect captains, training them to command and manage units and enable them to exercise functions of the Major State in the private sector of the Cuadro de Estado Mayor de la Activa (QEMA) of the Army. The course takes place in two years: the first year is at a distance and the second is face-to-face.

Escola de Comando y Estado Mayor del Ejército (ECEME)

Created in 1905 and located in Rio de Janeiro, ECEME is a traditional teaching establishment for the Brazilian Army. His mission is to prepare senior officers for the exercise of functions of Mayoral State, command, headquarters, direction and assistance to the highest scales of the Terrestrial Fuerza. In addition, it cooperates with the bodies of the General and Sectorial Directorate in the development of the doctrine for the preparation and use of the Force.

All courses at the Escola are postgraduate and are imparted according to the legislation that regulates higher education in the country and as prescribed in the Regulation of the Law of Education of the Army.

ECEME is increasing its relationship with similar schools of the Armada (EGN), the Air Force (ECEMAR) and civil universities. Annually it also receives military personnel from friendly nations for its courses, mainly from South America and Africa.

Military Engineering Institute (IME)

Located in the city of Rio de Janeiro, the IME is from the merger, in 1959, of Escuela Técnica del Ejército with the Instituto Militar de Tecnología.

The IME has as a mission to train officers for the Army's Cuadro de Ingenieros Militares (QEM). It offers the following courses: graduation course, intended exclusively for officers coming from AMAN; training and graduation course, aimed at young civilians who have graduated from secondary education; and training course, aimed at engineers and graduates who wish to join the Fuerza. It also offers master's and doctoral courses for civilians and the military. Likewise, it plans, coordinates, controls and executes the activities related to the admission exams and selection processes for the QEM.

The excellence of the IME courses can be verified by the excellent result that the institution has regularly obtained in the General Index of Courses (IGC)⁴⁴, where it is among the 14 best among the most of the thousand evaluated.

El Proyecto Tecnológico del Ejército foresees the transfer of the IME of its current installations to Guaratiba (RJ), close to the Centro Tecnológico del Ejército (CTEx). New and modern buildings, equipped with state-of-the-art equipment, and proximity to civil and military organizations, responsible for research and development, allow

⁴⁴ The General Index of Courses (IGC) makes it possible to know the performance of higher education institutions in the country, summarizing in a single indicator the quality of all undergraduate, masters and doctorate courses at my teaching institution. This index is published by the Anísio Teixeira National Institute of Educational Studies and Investigations (Inep) of the Ministry of Education, immediately after the publication of the results of the National Student Performance Examination (Enade).

rán al Instituto achieve higher levels of excellence in its activities. The IME transfer and modernization process is in its final stage of studies.

Army Health School (EsSEx)

The Escuela de Salud del Ejército was created in 1910 under the name Escuela de Aplicación Médica Militar. Located in the city of Rio de Janeiro (RJ), the EsSEx is a higher education teaching table that follows the military teaching line of Health. Tiene como misión: training officers of the Cuadro de Médicos del Servicio

de Salud para el servicio activa del Ejército; to coordinate the postgraduate courses of the officers of the Health Service, the military of the Complementary Cuadro of Officials of Nursing, Veterinary and Psychology, and the subtenientes and sergeants of Health; contribute to the development of military doctrine in the Health area; carry out investigations in the area of its competence, including in cooperation with related institutions; coordinate activities and practices on matters specific to EsSEx; and carry out a selection exam for admission to the Military Education Line of Health.

Escuela de Formación Complementaria del Ejército (EsFCEx)

The Escuela de Formación Complementaria del Ejército was created on April 5, 1988 under the name Escuela de Administración del Ejército (EsAEx). With headquarters in the city of Salvador (BA), EsAEx started its activities with courses given to officers and under officers of the Army career.

On October 2, 1989, Law No. 7.831 created the Complementary Cuadro de Oficiales, taking into account the changes required by the Institution's modernization process. Since then it corresponds to EsAEx the mission to train the officers of this new squad.

The Escuela annually trains men and women with graduation in different areas of knowledge, coming from institutions of higher education recognized by the Ministry of Education. Approved in a national selection exam, they pass the Complementary Staff Officer Training Course (CFO/QC), to perform and assume the responsibilities and functions of an Army officer, according to their specialties.

On November 8, 2010, Decree No. 1080 transformed the Escuela de Administración del Ejército en Escuela de Formación Complementaria del Ejército, modifying its mission and organization. In addition to the officers of the Complementary Cuadro, it also started to train dental and pharmaceutical officers.

Escola de Sargentos de Armas (EsSA)

Located in the city of Tres Corações, in the state of Minas Gerais, it is the establishment of military education responsible for the selection and training of combat sergeants in Infantry, Cavalry, Artillery, Engineering and Communications. The curricular activities, of one year and medium duration, are developed with the aim of training the student to exercise the functions that he will have to perform in the troop bodies.

School of Logistics Sergeants (EsSLog)

Located in the city of Rio de Janeiro, it was created in 2010 by transformation of the Escola de Materia Bélico. It is the establishment of military education responsible for the selection and training of the Intendency sergeants, maintenance of communications, maintenance of vehicles, maintenance of armament, topography and musicians of the Army. This School has as its main purpose the professional training of Army logistics sergeants. All curricular activities are developed with the objective of qualifying the student for the activities that he will have to perform in the troop bodies.

School of Perfection of Arms Sergeants (EASA)

The Escola de Perfeccionamiento de Perfeccionamiento de Sargentos de Armas (EASA) was created on July 10, 1992, with the name Centro de Instrucción de Perfeccionamiento de Sargentos-Sur, subordinated to the Comando Militar del Sur, in the acuartelamiento of the 17th Infantry Battalion .

The School has the mission to perfect the sergeants-in-arms of the Brazilian Army. For this purpose, the Course for the Improvement of Sergeants (CAS) in Infantry, Cavalry, Artillery, Engineering and Communications is imparted, qualifying them for the exercise of inherent functions to their satisfaction also in the administrative field.

Scientific and technological institutions

Centro Tecnológico del Ejército (CTEx)

Created in 1979, in Rio de Janeiro, CTEx is a military organization directly subordinated to the Department of Science and Technology, whose mission is research and development of products for the defense of the interests of Earth Force. For this purpose, in some cases, it signs alliances with national companies to develop a set of products and receives financial support from a Brazilian organization for the financing of studies and projects, FINEP (MCTI).

These alliances were implanted, for example, for the development of the SABER M60 radar.

Among the main projects being developed in CTEEx, we highlight:

- Radar SABER M60 - the project integrates a low height anti-aircraft defense system, that seeks the protection of sensitive points and areas.
- Anti-tank light weapon - developed by CTEEx in alliance with national companies, it is a weapon for individual use, used for close anti-tank combat.
- Misil MSS 1.2 AC - aims to meet the characteristics of modern combat, where great mobility, high fire power and ability to fight different types of whites are needed.
- Flight Simulator for Esquilo and Fennec Helicopters — product of the CTEEx desar rolled in alliance with a national company, intended for the training of pilots of the Army Aviation.

Exchange and cooperation with other countries

The Ejército maintains a series of exchange and cooperation activities with other nations. The growing cooperation with the countries of South America and Africa stands out, and, more specifically, the Cooperación Militar Brasileña en Paraguay (CMBP), since 1942, when it was initially called Misión Militar Brasileña de Instrucción en Paraguay (MMBIP).

The most relevant areas are presented below:

Military teaching area

- Foreign military in Brazil (2001-2011)

countries	Military	countries	Military	countries	Military	countries	Military
South Africa	8	Korea sur	8	Indonesia	two	UK	4
Germany	7	El Salvador	9	Iran	two	Republic Dominican	27
Angola	82	Ecuador	142	Ireland	1	Republic Czech	3
Argentina	134	spain	23	Italy	4	Senegal	1
Belize	two	USA	70	Mexico	29	Surinam	54

countries	Military	countries	Military	countries	Military	countries	Military
Bolivia	71	Francia	37	Mozambique	17	San Tome y Prince	22
Belgium	two	Guatemala	25	namibia	6	thailand	1
Cable Green	19	guyana	56	Nicaragua	3	Timor Eastern	21
Canada	12	guyana french	4	Nigeria	3	Uruguay	102
Chile	74	Guinea Bissau	18	paraguay	246	Venezuela	159
China	6	Honduras	7	Peru	146	-	-
Colombia	68	India	two	Portugal	9	-	-

- Brazilian military abroad (2001-2011)

countries	Military	countries	Military	countries	Military	countries	Military
South Africa	11	China	7	Hungary	1	Portugal	12
Germany	42	Colombia	70	India	7	UK	33
Argentina	51	Ecuador	15	Ireland	1	Sweden	5
Austria	1	spain	35	Israel	5	Switzerland	4
Australia	1	USA	171	Italy	7	Tunicia	1
Bolivia	8	Finland	4	Mexico	4	Turkey	1
Belgium	3	Francia	19	Norway	8	Uruguay	20
Canada	60	Guatemala	1	paraguay	5	Venezuela	6
Chile	44	guyana french	10	Peru	23	-	-

Military armies in 2010/2011

Operation/ exercise	Host country	participating countries
COMPETITION STRENGTHS COMMAND	El Salvador (2010) Republic Dominican (2012)	Bahamas, Belize, Brazil, Chile, Colombia, Costa Rica, El Salvador, Ecuador, USA, Guatemala, Honduras, Nicaragua, Paraguay, Panama, Peru, Dominican Republic and Uruguay
	Multinational competition involving military personnel from the special forces of countries of the American continent, shifts of headquarters for their execution. It has the following objectives: to develop and maintain alliances and regional cooperation; strengthen political and military relations; and perfecting the training, interoperability and capacity of the special forces to carry out tactics, techniques and procedures in its area of activity	

Women in the Army

The first recorded participation of a Brazilian woman in combat took place in 1823 with María Quitéria de Jesus, who fought for the maintenance of Brazil's independence. María Quitéria is considered to be the first Brazilian woman to enlist in a military unit. However, it was received in 1943, during World War II, that the women officially joined the Brazilian Army: 73 nurses, 67 of them hospitals and six specialists in air transport. These volunteers served in four different hospitals of the US Army. After the war, as well as the rest of the Brazilian Expeditionary Force (FEB), the nurses, in their majority, were decorated, received the official rank and began to be licensed for active military service.

In 1992 the Escuela de Administración del Ejército in Salvador (BA) enrolled the first training group with 49 women who passed the public selection exam.

The Ejército instituted, in 1996, the voluntary female military service for doctors, dentists, pharmacists, veterinarians and nurses of higher education. That same year incorporated the first group of 290 female volunteers to provide military service in the Health area.

The Instituto Militar de Ingeniería, in 1997, enrolled the first group of 10 students for the Cuadro de Ingenieros Militares (QEM).

In 1997, the Escuela de Salud del Ejército (EsSEx) enrolled and formed the first group of medical officers, dentists, pharmacists, veterinarians and higher-level nurses for the Cuadro de Salud del Ejército.

In 1998 the Ejército instituted the technical service pass for higher-level professionals from other areas. That same year, to meet the needs of the institution, it incorporated the first group with lawyers, business administrators, accountants, professors, systems analysts, engineers, architects, journalists, among other areas of human and exact sciences, totaling 519 women.

The Escuela de Salud, in 2001, started to accept the inscription of women to participate of the selection exam and fill in the plazas offered in the Health Sergeant Course.

Asimismo, in 2011, the ECEME graduated, for the first time since its creation, a three official women's segment. The medical officers concluded the Chief Executive and State Course for officers of the Health Cuadro and, therefore, they opened up the possibility of being able, in the future, to rise to the rank of General Officer.

The Army's main asset consists of having men and women who are motivated and capable of fulfilling their mission. For this purpose, seeking to fill an existing void, the Executive Power proposed the Law Project that will allow the admission of women to the military career training courses of the Army, observing the peculiarities and activities castrenses.



Women in activities in the Army



A-1 aircraft

Brazilian Air Force

The Brazilian Air Force (FAB) has its origins in the aviation of the Brazilian Navy and the Brazilian Army. In 1916 the Navy founded the Escuela de Aviación Naval, on the island of “En xadas”, in the city of Rio de Janeiro. In 1919 the Ejército created the Escuela de Aviación Militar, based in Campo dos Afonsos, in the same city.



In 1941, during the Second World War, the Ministry of Air Force⁴⁵ was created, born of the union of air resources and human resources of the Ejército, the Armada and the Department of Civil Aviation. Its armed arm was initially called Fuerzas Aéreas Nacionales and, in June of the same year, it was called Fuerza Aérea Brasileña.

It is important to mention that, in 1932, the first flight of the Correo Aéreo Militar (CAM) departed from Campo dos Afonsos, a service that is now part of the Correo Aéreo Nacional (CAN), of enormous importance for national integration.

⁴⁵ The first minister of the Air Force was the jurist and politician Joaquim Pedro Salgado Filho.

The Fuerza Aérea tuvo su bautismo de fuego during the Second World War. Participated in the antisubmarine campaign in the South Atlantic and in Europe, fought in the skies of Italy alongside the Fuerzas Aliadas.

With the creation of the Ministerio de Defensa, in 1999, the Ministry of the Air Force, similarly to what happened with the other Fuerzas, was transformed into the Comando de la Fuerza Aérea (COMAER).

The challenges that the Brazilian Air Force has to face are proportional to the dimensions of the country. Due to the continental extension of the airspace that we have to watch, control and defend, together with the complexity of the current international scenario, multiple dimensions are generated for the performance of the Force, which must be able to respond to demands with modern means and efficient.

mission

It corresponds to the Air Force to maintain sovereignty in the national airspace with a view to the defense of the Patria, preventing the use of Brazilian airspace for the practice of hostile acts or contrary to the national interests. For this purpose, it has surveillance, control and airspace defense capabilities, with detection, interception and destruction capabilities.

Son subsidiary attributions private of Fuerza Aérea:

- Provide security for air navigation. • Establish, equip and operate the aerospace infrastructure, Air Force and airport aria under your responsibility.
- Operate the Correo Aéreo Nacional.
- Cooperate with federal agencies in the repression of crimes that affect the use of air space and airport areas, in the form of logistical support, intelligence, communications and instruction.
- Preserving the exclusive competences of the judicial police, to act, in a continuous and permanent way, through actions of control of the Brazilian air space, against all types of illicit air traffic, with emphasis on those related to drug trafficking, weapons, ammunition and passengers illegal.

For the performance of this last attribution, the Air Force acts in cooperation with competent inspection bodies, to whom corresponds the task of acting after the landing of aircraft involved in illicit air traffic. In the absence of these bodies, the Force will be able to review people, land vehicles, vessels and aircraft, as well as carry out arrests in flagrante delicto.

Bearing in mind the specificities of these attributions, the Commander of la Fuerza Aérea as “Autoridad de la Fuerza Aérea Militar”.

The Air Force, supported by specific law and when it has authorization from the President of the Republic or the authority delegated by it, has the attribution of, after the legally provided coercive measures are exhausted, to destroy the aircraft that is classified as hostile, as per the Law no 7.565, of December 19, 1986, amended by the Law no 9.614, of March 5, 1998.

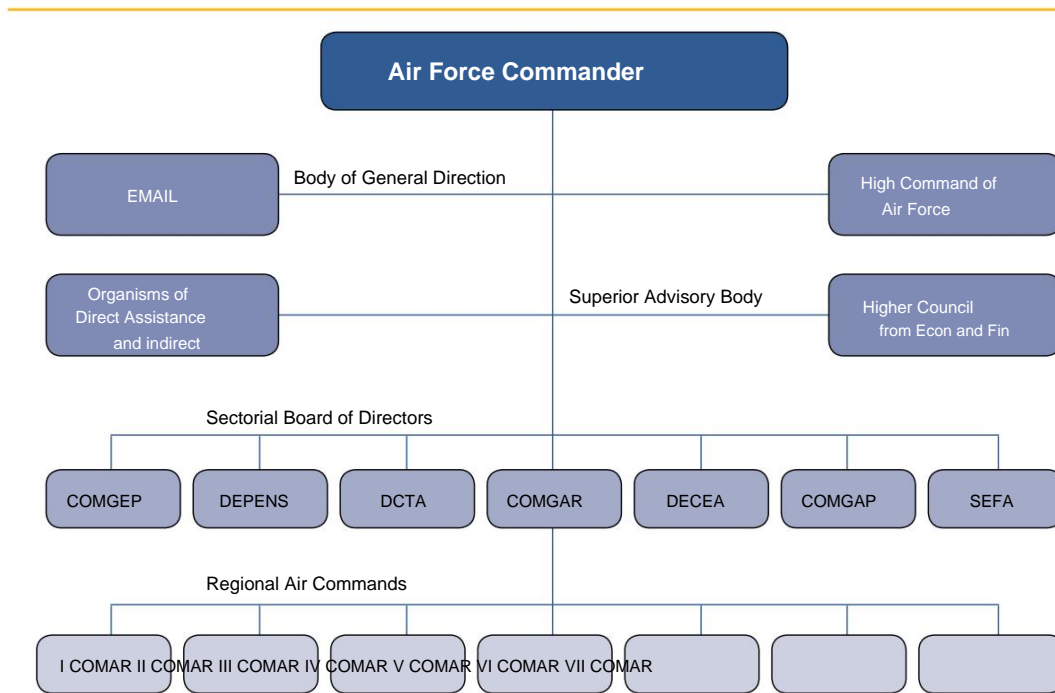
Organization and operative means

The Air Force Command has the following organizational structure:

- a) An Organismo de Dirección General, el Estado Mayor de la Fuerza Aérea (EMAER).
- b) Of Higher Assistance Bodies:
 - High Command of the Air Force.
 - Consejo Superior de Economía y Finanzas.
- c) Other Bodies of Direct and Immediate Assistance to the Commander:
 - Office of the Commander of the Air Force (GABAER).
 - Air Force Intelligence Center (CIAER).
 - Center for Social Communication of the Air Force (CECOMSAER).
 - Center for Research and Prevention of Aeronautical Accidents (CENIPA). • Asesoría Parlamentaria del Comandante de la Fuerza Aérea (ASPAER).
 - Instituto Histórico Cultural de la Fuerza Aérea (INCAER).
 - Comisión de Promociones de Oficiales de la Fuerza Aérea (CPO).
 - Asesoría de Seguridad Operativa del Control del Espacio Aéreo (ASOCEA). d)

Seven Bodies of Sectorial Management:

- General Command of Air Operations (COMGAR). •
- General Support Command (COMGAP).
- Command General of Personal (COMGEP).
- Secretaría de Economía y Finanzas de la Fuerza Aérea (SEFA).
- Department of Air Space Control (DECEA).
- Department of Aerospace Science and Technology (DCTA). •
- Department of Teaching of the Air Force (DEPENS).



Fuerza Aérea organization chart

General Command of Air Operations

The Comando General de Operaciones Aéreas (COMGAR) is responsible for the preparation and use of the main means of the Air Force. This corresponds to COMGAR the command, planning, direction, supervision, coordination, execution and evaluation of the use of all air units. The seven major Regional Air Commands (COMAR) are subordinated to COMGAR.

The Regional Air Commands are extensions of the administrative function of the Air Force Command, consolidating the support to the air units located in the areas under their jurisdictions, so as to guarantee the effective use of air power, in real or training missions .

The seven Regional Air Commands have their headquarters in the cities of Belém, Recife, Rio de Janeiro, Sao Paulo, Canoas, Brasilia and Manaus.

The COMAR commander is responsible for matters relating to the Air Force Command in his area of jurisdiction. The administrative structure of this command is configured in such a way as to cover all fields of action of the Fuerza Aérea.

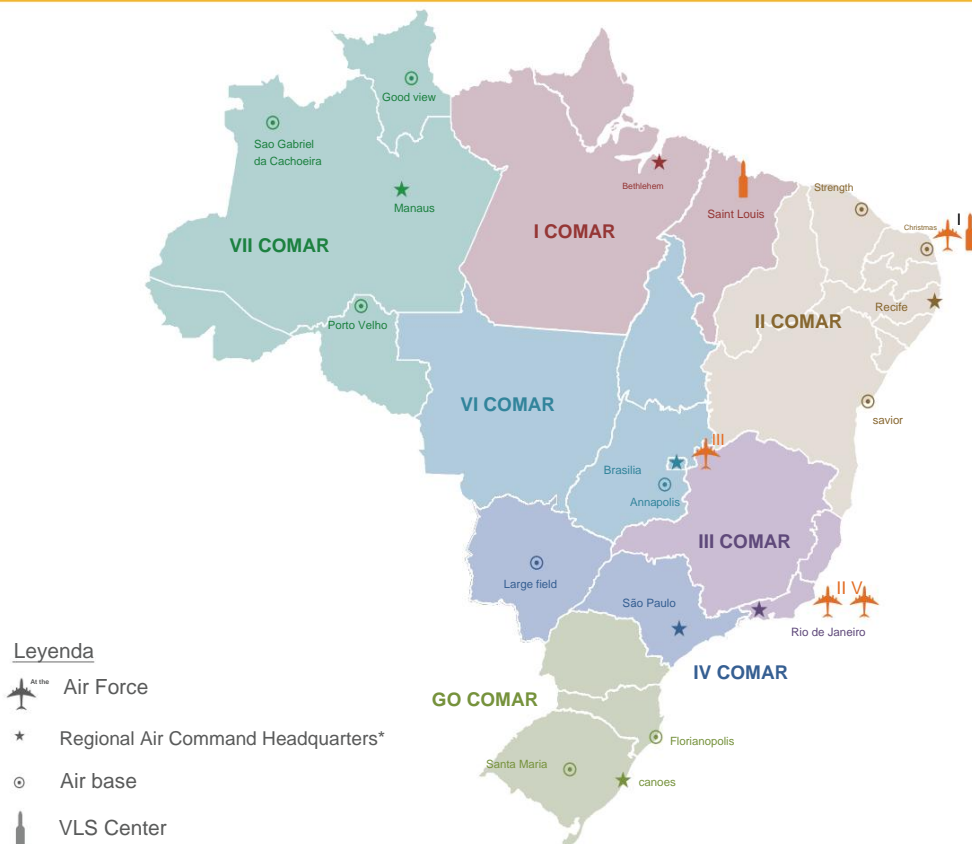
The Fuerza is organized into operational commands called Fuerzas Aéreas⁴⁶, also subordinated to COMGAR. They are responsible for the training of their combat teams and for the use of aircraft of different types and in different operating environments. •

Primera Fuerza Aérea (I FAE) — specializes in pilots of the Air Force in fighter jets, rotary wings (helicopters), transport, reconnaissance and patrol.

• Second Air Force (II FAE) — deploys aircraft in independent aerotactical operations or in conjunction with the other Air Forces and in search and rescue operations. •

Tercera Fuerza Aérea (III FAE) — employs strategic and tactical fighters, aircraft of reconnaissance and air defense.

• Fifth Fuerza Aérea (V FAE) — is responsible for the transport units, rebas fabric in flight, launching parachutists and supporting the Army units.



* Includes Air Base, with the exception of Sao Paulo, which has a very close Air Base, in Guarulhos. In Rio de Janeiro, there is the Santa Cruz Air Base, the "del Galeao" Air Base and the "dos Afonsos" Air Base.

Commandos and Main Military Organizations of the Air Force

⁴⁶ Currently, the Fourth Air Force (IV FAE) and the Sixth Air Force (VI FAE) are deactivated.

operative means

In addition to human resources, the Air Force, to fulfill its constitutional mission

Finally, the following aerial means are available:

designation	Type	quantity	Photograph
AH-2 Saber	attack helicopter	6	
AT-26 Xavante	flight test plane	two	
TO 1	Air-surface attack aircraft and reconnaissance	53	
A-29 super toucan	Advanced training aircraft and light attack	86	
C-105A amazon	Transport plane, search and rescue	12	

designation	Type	quantity	Photograph
C-130 Hercules	Transport aircraft, flight refueling and search and rescue	22	
C-95 Bandeirante	Transport aircraft, reconnaissance, maritime patrol, search and rescue	86* * Forecast deactivation of a 35% of the fleet in them next 5 years	
C-97 Brasilia	transport plane	20	
C-98/A caravan	transport plane	29	
C-99 Embraer 145	transport plane	8	
E/R 99 Embraer 145	Avión de control y alarm en flight y reconocimiento	8	

designation	Type	quantity	Photograph
F-2000 B/C Mirage 2000	interceptor fighter aircraft	12* * Deactivation scheduled for December 31, 2013, with replacement by Project FX-2	
F-5 EM/FM Tiger II	Avión de caza multiple mission	57	
H-1H	Transport, search and rescue helicopter	24* * Forecast deactivation of it float in the next 5 years.	
H-34 Puma	Transport, search and rescue helicopter	10* * Forecast deactivation of it flota in the next 5 years.	
VH-35	VIP transport helicopter	two	
H-36 EC-725	Transport, search and rescue helicopter	1* * Contractors 16 aircraft.	

designation	Type	quantity	Photograph
H-50 Squirrel	instruction helicopter	24	 A photograph of an H-50 Squirrel helicopter, which is a light helicopter used for training. It is shown in flight against a background of green trees.
H-55 bireactor squirrel	flight test helicopter	4	 A photograph of an H-55 bireactor squirrel helicopter, a larger helicopter used for testing. It is shown on a tarmac with a grassy field in the background.
H-60 black hawk	Transport, search and rescue helicopter	10	 A photograph of an H-60 Black Hawk helicopter in flight, silhouetted against a bright sky with a mountain range in the background.
IU-93A	flying inspection aircraft	4	 A photograph of an IU-93A flying inspection aircraft, a twin-engine turboprop aircraft used for air traffic control and inspection. It is shown in flight against a clear sky.
KC-137 Boeing 707	Transport aircraft, flight refueling	4	 A photograph of a KC-137 Boeing 707 military transport aircraft in flight, showing its characteristic four engines and high-wing configuration.
P-3 AM	sea patrol plane	5* * Contractors 9 aircraft.	 A photograph of a P-3 AM Orion maritime patrol aircraft in flight, showing its four engines and long fuselage.

designation	Type	quantity	Photograph
T-27 Toucan	training plane	101	
VU/R-35 Learjet 35	Airplane for transport and reconnaissance	7	
VC-99 B/C Legacy/ E-135	VIP transport plane	8	
T - 25 Universal	airplane of training	60	
VC-1 Airbus A-320	presidential plane	1	
VC-2 Embraer 190	presidential airplane	two	

Capabilities

The Air Force, currently with an approximate staff of 67,000 soldiers, counts with operative means that are grouped, according to their use, in hunting, patrol, transport, search and rescue, rotating wings and reconnaissance. They are distributed in air bases throughout the national territory.

The mission of the air bases is to provide the necessary administrative, logistical, operational and security support to the Air Force Command and the Operational Command that act in them, permanently or temporarily.

The following factors are considered relevant for the total utilization of them capabilities of the Force in the fulfillment of its mission.

In the strategic segment:

- Ability to visualize crisis or conflict areas.
- Technological training.
- Institutional and international relationships.

In the logistics segment:

- Capacity for combined and joint operations, logistical and deployment support.
- Security and redundancy of communication systems. •

Maintenance, at a high level, of troop morale. • Human, financial and material resources. • Training in information technology.

- Organizational, patrimonial and administrative structure.

In the operating segment:

- Capacity for command and control.
- Combat capability. •

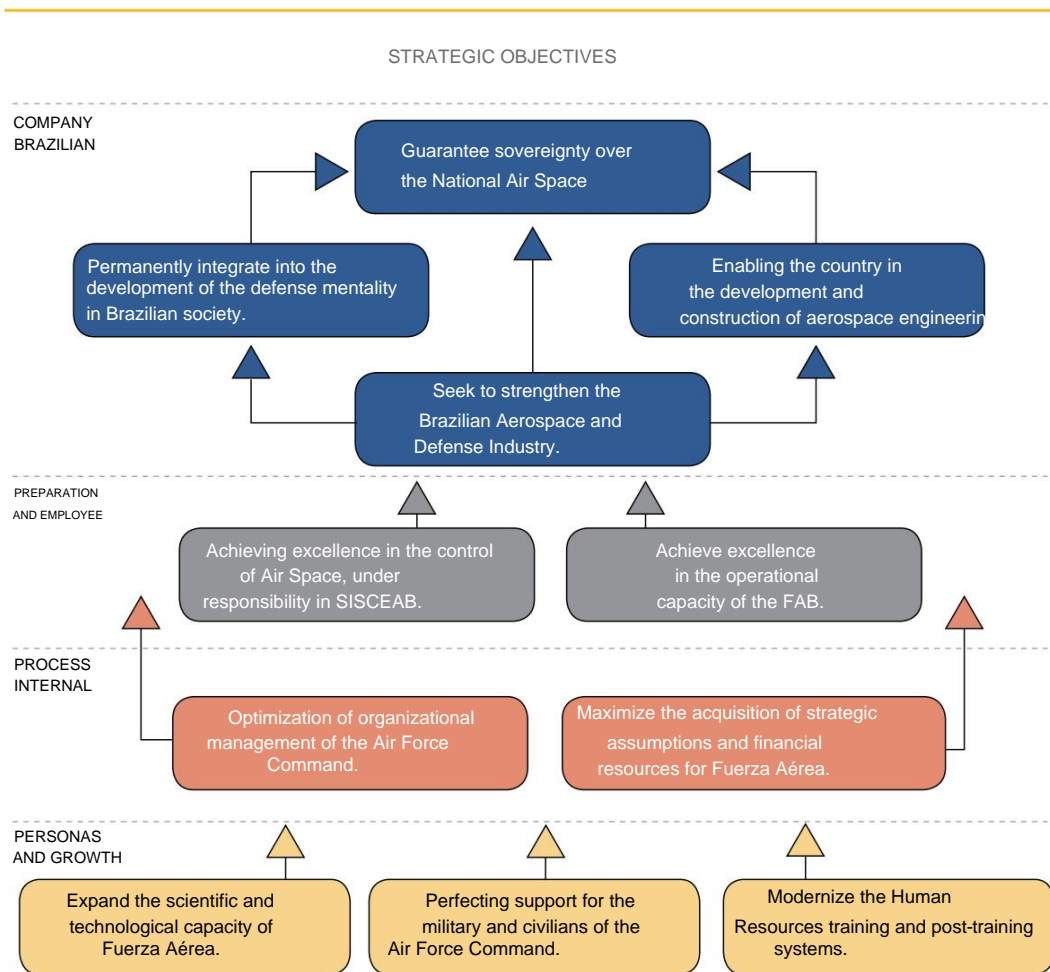
Capacity to operate in an electromagnetically hostile environment.

- Land and anti-aircraft self-defense capabilities.
- Intelligence capability.
- Capacity for operational planning.

Strategic vision and articulation

For the fulfillment of the mission of the Air Force, as provided for in the Constitution and in the Laws and in accordance with the National Defense Strategy, the Institutional Planning System of the Air Force was established. This process defines a logical sequence of procedures, in order to guarantee the necessary unity of thought and action, indispensable for operational efficiency and administrative continuity within the scope of Fuerza Aérea.

The figure below presents the strategic objectives of the Air Force, stable cidos en el PEMAER.



Strategic objectives

The Sistemática allows COMAER to establish its medium and long term vision; implement a process aimed at results; integrate the planning, budget and management functions; and promote the conceptual alignment established by the guiding documents.

Product of this Planning System, the Plan Estratégico Militar de la Fuerza Aérea (PEMAER), in addition to substantiating the projects and constant actions in the Plan de Articulación y Equipe de Defensa (PAED), establishes the objectives of COMAER for the intended period and guides the prioritization process of presumed resources, defining attributions and responsibilities.

Based on a methodology developed by the FAB, a strategy of planning and action that establishes three structuring elements described below.

I. Strengthening the operating capacity

This eje has the following main objectives: to provide the necessary means for the safe and efficient circulation of civil and military air traffic in the Brazilian airspace, and to contribute to the defense of national sovereignty, through the development, acquisition and modernization of aircraft .

Main benefits: • Having

effective capacity for surveillance, control and defense of air space, over points and sensible areas of the national territory, with detection, interception and destruction resources.

- Build military capacity to compose the main effort of the National Defence, in which priority is given to actions related to the re-equipment of the Air Force.
- Absorb the knowledge that will allow the country to achieve its technical independence technology in the aerospace sector.

II. Scientific and technological training

The planning referring to the aerospace scientific and technological complex is guided by the constant search for training of human resources, as well as the provision of material means with the purpose of mastering the technologies required by the Air Force. For this, COMAER pays special attention to research and technological and industrial development in the aerospace sector.

Main benefits:

- Contribute to the reduction of external dependency, in close cooperation with the national industry, especially aerospace, through the progressive nationalization of equipment and services.

- Establish suitable plans for the support of the national industry, encouraging associations, participation and acquisitions that ensure competitiveness and seeking the insertion of its products in the foreign market; y
- Train human resources to master the technologies required by it Air Force.

III. Organizational and operational transformation

The process of transformation of the Air Force is conducted in the sense of identifying the dimension and the ideal structure for the elimination of strategic vulnerabilities, which allows the Command of the Air Force to act in its mission of National Defense and promotion of the development of Country.

Main benefits: •

Incorporate the domain of advanced technologies, including through the modernization of training systems and post training of human resources.

- Maximize the effectiveness of the application of measures and management at COMAER, so that it matches the new capabilities and concepts of operation that imply the organizational change.
- Valuing the professional through the perfection of the support structure.
- Promoting articulation that streamlines planning, interoperability with the more Fuerzas y favors the deployment, the use and the support to the Force.

Enseñanza – principales schools

Academia de la Fuerza Aérea (AFA)

The AFA is the successor institution of the former Escuela de la Fuerza Aérea, originally headquartered in Campo dos Afonsos, which since the creation of the Ministry of the Air Force, in 1941, trained airmen and stewards for the Air Force.

The change in name, from Escuela de la Fuerza Aérea to Academia de la Fuerza Aérea, took place in 1969.

In 1971, the AFA was transferred to its new installations in Pirasununga (SP). He is currently responsible for the training of cadets in the Training Course for Air Force Officers (CFOAV), the Training Course for Quartermaster Officers (CFOINT) and the Training Course for Air Force Infantry Officers (CFOINF).



AFA - Pirasununga (SP)

Higher-level training lasts four years and prepares officers for the initial grades of the careers of the teams of aviators, intendants and Infantry of the Air Force. The majority of the plazas of the first year of the academic cycle complete the students from the Escuela Preparatoria de Cadetes del Aire (EPCAr), a secondary teaching institution of the Air Force located in Barbacena (MG), whose course has three years of duration. The other plazas are completed through a selection process. At the end of the fourth year, the cadet is declared an aspiring officer and receives the certificate of license in Sciences of the Fuerzas Aéreas.

University of the Air Force (UNIFA)

Created in 1983 and headquartered in Rio de Janeiro, UNIFA is part of the Departamento de Enseñanza de la Fuerza Aérea (DEPENS). It has the purpose of planning, guiding, coordinating and controlling the courses destined to perfection and the high military studies necessary for the preparation of the functions of senior officers and General Officers. It also offers postgraduate courses, such as master's, doctorate and specialization, in addition to various internships. The Escuela de Comando y Estado Mayor de la Fuerza Aérea (ECEMAR) and the Escuela de Perfeccionamiento de Oficiales de la Fuerza Aérea (EAOAR) are subordinated to UNIFA.

Escuela de Comando y Estado Mayor de la Fuerza Aérea (ECEMAR)

ECEMAR was created in 1947, in Rio de Janeiro, and provides high-study courses for senior officers of the Fuerza Aérea. It is also responsible for updating the knowledge of students in matters relating to aerospace power, air warfare and high administration of the Force, through the courses in Aerospace Policy and Strategy (CPEA) and Command and Major State (CCEM) .

Air Force Officials Improvement School (EAOAR)

Created in 1953, in Guarulhos (SP), and later transferred to Rio de Janeiro, this school has as its main mission to perfect subordinate and intermediate officers, seeking the development of specific competences for the performance of administrative, auxiliary and operational functions, by means of the Air Force Officials Improvement Course (CAP).

Technological Institute of the Air Force (ITA)

Since 1950, ITA, headquartered in Sao José dos Campos (SP), is a university institution specialized in the field of aerospace knowledge, under the jurisdiction of COMAER. Its purpose is to promote, through education, teaching, research and extension, the progress of science and technology related to the aerospace field. It is also intended for the training of higher-level professionals in the specializations of interest in the Air Force and the aerospace sector in General. This institute is subordinated to the Departamento de Ciencia y Tecnología Aeroespacial (DCTA). It is one of the essential elements for the development of the scientific and technological aerospace complex.

The excellence of the ITA courses can be verified by the excellent result that the institution has regularly obtained in the General Index of Courses (IGC), since it is among the six best among the most of the thousand institutions evaluated.

The ITA expansion plan plans to double the undergraduate student body in six years, going from 120 students to 240 by 2018. It also plans to expand the postgraduate plazas by 60%, in five years.

Air Force Instruction and Adaptation Center (CIAAR)

Created in 1983, the former installations of the Centro de Instrucción de la Fuerza Aérea (CIGAR) are currently in the process of being transferred from the area of Pampulha, in Belo Horizonte (MG), to the city of Lagoa Santa (MG). It is responsible for training and adapting civil and military personnel to the officers of the Brazilian Air Force.

Air Force Specialists School (EEAR)

Created in 1941 through the meeting of human and material resources from naval aviation and military aviation, the EEAR was initially located in Ponta do Galeão, Isla del Gobernador, in the city of Rio de Janeiro. In 1950 it was transferred to Guaratin Guetá (SP), where it operates until today's close. Tiene por finalidad la formación y el perfeccionamiento de sergentes de la Fuerza Aérea.

Scientific and technological institutions

Institute of Aeronautics and Space (IAE)

The IAE emerged from the merger, in 1991, of the Instituto de Investigaciones y Desarrollo (IPD) and the Instituto de Actividades Espaciales (IAE), with the mission of carrying out research and development in the aerospace area.

The Instituto de Fuerza Aérea y Espacio develops scientific and technological solutions to strengthen the Brazilian Aerospace Power, with a focus on satellite launch vehicle projects, sounding probes and unmanned aerial vehicles, among others.

Institute of Advanced Studies (IEAv)

El IEAv comes from the merger of the Laboratorio de Estudios Avanzados with the Division of Estudios Avanzados, both belonging to the then Centro Técnico Aeroespacial (CTA). To make the General Command of Aerospace Technology effective, the IEAv started to act as a military organization of the Command of the Air Force, with the specific mission of developing experimental technologies and studies in projects in the areas of liquid explosives and supersonic combustion technology, among others.

Institute of Industrial Development and Coordination (IFI)

Created in 1967, the mission of the IFI is to contribute to the guarantee of performance, safety and availability of products and aerospace systems of interest to the Command of the Air Force. It provides services in the areas of standardization, metrology, certification, intellectual property, technology transfer and industrial coordination. The IFI promotes, therefore, the scientific and technological complex of Brazilian aerospace.

It is recognized by the International Accreditation Forum (IAF) as a certification body for quality management systems and as a certification body for aerospace quality management systems. .

Exchange and cooperation with other countries

The Fuerza Aérea maintains a series of exchange and cooperation activities with other nations, especially with the countries of South America and Africa. It is worth mentioning the Technical Mission of the Brazilian Air Force (MTAB) in Paraguay, established in 1982, with the objective of providing technical, operational and administrative assistance to the Air Force of that country. The most relevant areas are presented below.

Military teaching area

- Foreign military in Brazil (2001-2011)

countries	Military	countries	Military	countries	Military	countries	Military
Southern Africa	1	Chile	no	Francia	1	paraguay	53
Angola	18	Colombia	5	Guatemala	11	Peru	66
Argentina	15	Korea sur	4	Guinea Bissau	37	Portugal	10
Bolivia	55	El Salvador	4	Mozambique	17	Republic Dominican	28
Cape Green	12	USA	4	namibia	no	Uruguay	5
Canada	no	Ecuador	21	Panama	62	Venezuela	71

- Brazilian military abroad (2001-2011)

countries	Military	countries	Military	countries	Military	countries	Military
Germany	11	China	3	Francia	26	Peru	1
Argentina	13	Colombia	10	Italy	19	Kingdom United	30
Belgium	1	Korea sur	5	India	1	Russia	49
Canada	7	spain	114	Israel	1	Sweden	1
Chile	5	USA	110	Portugal	22	Venezuela	8

Military exercises in 2010/2011

Operation/ exercise	Host country	participating countries
COWBOY	Brazil	Brazil and Paraguay
	Binational operation that aims to control the circulation of cattle and products of bovine origin from Paraguay	
FELINE	Angola	Brazil, Angola, Cape Verde, Guinea Bissau, Mozambique, Santo Tomé and Príncipe, Portugal and East Timor
	Multinational exercise that seeks to organize and exercise a strong combined joint task (FTCC) of the Community of Portuguese Speaking Countries (CPLP) and to test the command and control procedures for peacekeeping operations in a crisis situation	
ANGEL THUNDER	USA	Germany, Australia, Belgium, Brazil, Canada, Chile, Colombia, Spain, France, Netherlands, Italy and United Kingdom
	Multinational and annual exercise that takes place in the USA, organized by the US Air Force, with the aim of carrying out the training of special operations	
COOPERATION	Chile	Argentina, Bolivia, Brazil, Canada, Chile, Colombia, El Salvador, Ecuador, USA, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay and Venezuela
	Multinational exercise, which eventually takes place, organized by the Chilean Air Force under the aegis of the American Air Force Cooperation System, with the aim of training the Air Force in combined operations seeking to provide humanitarian assistance to victims of natural disasters	
CRUZEX V	Brazil	Argentina, Brazil, Chile, France, USA, Uruguay and Venezuela
	Multinational exercise, biennial, taking place in Brazil, organized by Fuerza Aérea Brasileña, with the aim of planning and conducting combined operations, as well as promoting military cooperation between the participating nations	
PERBRA IV	Brazil and Peru	Brazil and Peru
	Binational exercise, biennial, in the border region between Brazil and Peru, jointly organized by the respective Air Forces with the objective of monitoring the airspace to combat illicit cross-border events carried out by air means	
BOLBRA I	Bolivia	Brazil and Bolivia
	Binational, biennial exercise in Bolivia, jointly organized by the respective Fuerzas Airlines with the aim of increasing cooperation between both	

Women in the Air Force

La Fuerza Aérea created the Women's Body of the Reserve de la Fuerza Aérea (CFRA) in 1981 and received the following year its 1st group in Campo dos Afonsos, in Rio de Janeiro. On this occasion, 150 women joined the Fuerza Aérea – psychologists, nurses, systems analysts, social workers, speech therapists, nutritionists and librarians selected from the north to the south of the country. The women, therefore, have already formed a gas – part of the administrative life of Fuerza Aérea for three decades.

In the Academia de la Fuerza Aérea, where the military who can achieve the highest ranks in the scope of the Air Force, the entrance of women took place in 1996 in the Curso de Formación de Oficiales Intendentes. In 2006 the Air Force formed the first group of Brazilian military aviators.

En los cuadros de Aviadores, Intendentes, Infantería de Fuerza Aérea, Salud e In Aeronautical Geniuses, the women in the Air Force can rise to the rank of General Officer (Brigadier), competing for it under identical conditions to those of the male officers. La Fuerza Aérea Brasileña counts today in its cua dros with approximately 4 thousand women.



Fighter pilot in A-29 (Super Tucano)

General principles of use of the military instrument

Strategic driving of the Fuerzas

The preparation and use of the Military Power is carried out according to the Defense Military Structure, defined by Decree No. 7,276 of August 25, 2010. The Defense Military Structure has the following composition:

- i. President of the Republic.
- II. Minister of State for Defence.
- III. Defense Military Council.
- IV. Commanders of the Armed Forces.
- v. Jefe del Estado Mayor Joint of the Armed Forces.
- SAW. Commanders of the Operative Commands.

The President of the Republic, as supreme commander of the Armed Forces, advised by the Minister of Defense and the Military Council of Defense, is responsible for the use of military means and the strategic conduct of the Forces, as provided for in art. 2nd of the Complementary Ley no 97, of June 9, 1999.

The Armed Forces have their own structures and are subordinated to the Minister of Defense. The Estado Mayor Conjunto de las Fuerzas Armadas (EMCFA) is the permanent assistance body of the Minister of State for Defense in the process of superior direction of the Armed Forces. The planning of the joint use of the Forces in operations, which includes personnel and military means, is elaborated and coordinated by the EMCFA.

In the face of a crisis or armed conflict, the President of the Republic will approve the Strategic Plan of Use and designate the Commanders of the Operative Commands. Each activated Operational Command will be assigned an area of responsibility corresponding to a geographic space – Theater of Operations – in which the Commander will have the authority to conduct military operations in order to achieve the selected and approved objectives. The Operative Commanders present to the Minister of State for Defense the General conception of the operations that will have to be conducted and the proposal to award military means to integrate their respective Commands.

The Comandantes de las Fuerzas Armadas suministran los medios adjudicados por el Minister of State for Defense to the Operative Commands and providing logistical support necessary.

Joint Operations Doctrine

The preparation of Armed Forces, based on their operational capabilities, means the possibility of having military forces capable of acting jointly, with flexibility, versatility and mobility.

Large-scale military operations require the thoughtful use of elements belonging to more than one Force. For this purpose, the Singular Forces must combine their efforts, make procedures compatible and integrate actions, in order to obtain greater efficiency and effectiveness in the execution of joint operations.

The EMCFA prepares the Strategic Plans for Joint Use of the Armed Forces (PECFA) and coordinate the training and joint use of the Armed Forces.

The planning of a joint operation, even though it is similar to that of any other operation, is distinguished by the heterogeneity of the processes of use and by the peculiarities of the techniques of the Fuerzas Componentes, which is why it is so important that the coordination and integration of them planned actions are carried out through a doctrine of joint operations.

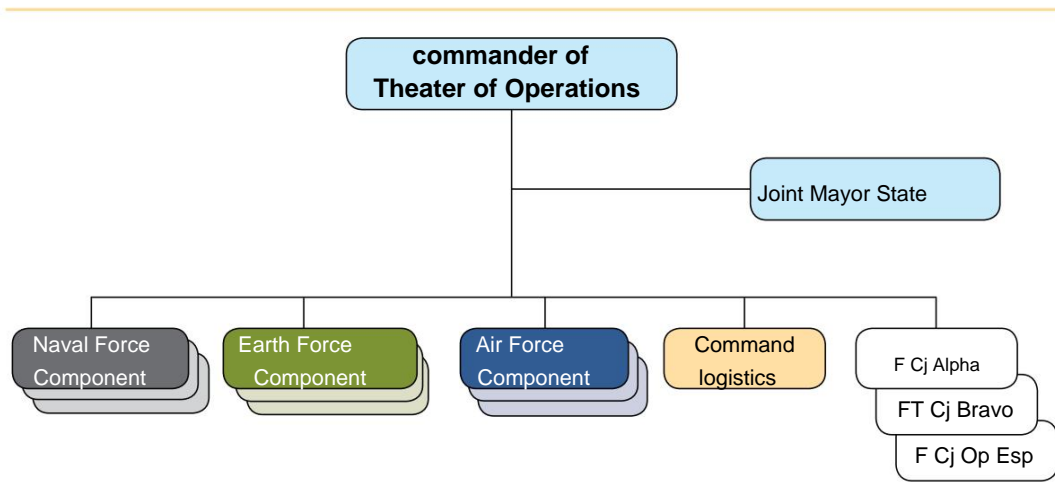
The doctrine of joint operations creates conditions for the synchronization of naval, land and air actions, with the aim of achieving strategic and operational objectives, in harmony with political, diplomatic and economic efforts. The goal is to obtain efficiency through the synergy of the Fuerzas Componentes del Comando Operativo that operate in a given Theater of Operations.

Theater of Operations (TO)

The Theater of Operations can be terrestrial or maritime and comprises the necessary area for the conduction of the operations, including the respective logistical support. The Armed Forces that act in the TO are subordinated to a single Operational Command. The single Command allows the coordination of actions and the increase of interoperability between the Fuerzas, avoiding the duplication of efforts and favoring the reduction of losses.

An Operative Command will be considered a set when it is composed of more than one Power. At the same time, each Component Force, member of a Joint Operating Command, may be of a singular character the whole.

It will be considered a Component Force of singular character when it is organized and constituted with integral mediums of only one of the Fuerzas. In this case, the Fuerza Componente will receive the nomenclature of Fuerza Naval Componente, Fuerza Terrestre Componente or Fuerza Aérea Componente.



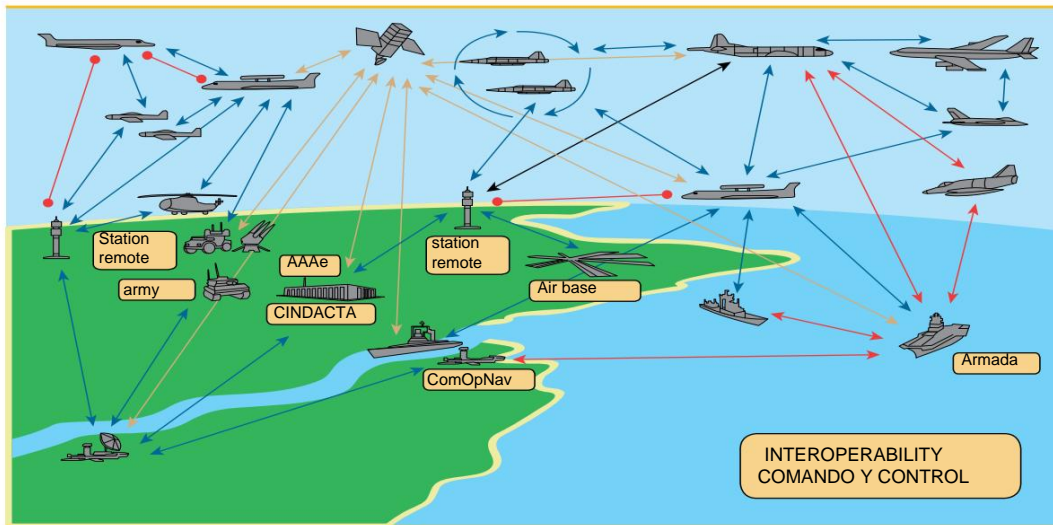
Forces at the Teatro de Operaciones (TO)

On the other hand, it will be considered a Component Force of a joint character when in its organization and constitution, weighty parcels of averages of more than one of the Armed Forces are awarded, under a single command. In this case, you can receive the nomenclatures of the Joint Task Force (Ft Cj) or Joint Task Force (F Cj), such as, for example, Special Operations Joint Force (F Cj Op Esp), Logistic Command (C Log) and many others that are considered necessary.

These military Forces will tend to share spaces and carry out actions with a single objective, which requires a high degree of interoperability, which implies the mutual knowledge of the Forces employed and the common procedures, the standardization of plans and documents, and the use of equipment that makes it possible to exchange information and services.

Interoperability in joint operations

Several Component Fuerzas coexist in the TO that share the maritime, terrestrial and air environments in a coordinated way, leading actions for the fulfillment of a determined mission. El Comando del Teatro de Operaciones synchronizes the actions of the Fuerzas Componentes, seeking to achieve the strategic and operational objectives. The goal is to obtain effectiveness through the synergy of different means in the TO.



Interoperability

The use of Armed Forces to guarantee the law and order (GLO)

The operations of the GLO demand special preparation and training. The use of the Forces in this type of operation is fundamentally different, in principle and doctrinally, from the traditional use in missions related to the external defense, in which the focus is to act on enemy forces, perfectly identifiable on the ground, normally characterized as an armed and uniformed military force.

The peculiarities of this type of action demanded the creation of a school destined to study and investigate the theme. The Centro de Instrucción de Operaciones de Garantía de la Ley y el Orden (CIOpGLO), in Campinas (SP), subordinated to the 11th Brigada de Infantería Ligera, searches for doctrinal updating and the preparation of human resources for this type of use.

The use of the Armed Forces to guarantee the law and the order is the responsibility of the President of the Republic, in terms of art. 15 of the Complementary Law no 97/199947. The law specifies that after the President's message, the operational bodies of the Armed Forces will be activated, which will be carried out episodically, in a previously established area and for a limited time, the preventive and repressive actions necessary to guarantee the desired result.

After the determination of the use of the Armed Forces to guarantee the law and the order, it will correspond to the competent authority, by means of a formal act, to transfer the

47 Modified by Complementary Laws No. 117/2004 and No. 136/2010

operative control of the public security bodies necessary for the development of the actions to the authority in charge of the operations, which shall constitute a center for the coordination of operations, composed of representatives of the public bodies under its operative control or with related interests.

The legislation highlights the subsidiary nature of the intervention by the Armed Forces, which must take place only “after the instruments destined for the preservation of public order and the safety of people and heritage have been exhausted”, listed in art. 144 of the Federal Constitution.

Presidential Decree No. 3,897 of 2001 provides that public security measures will be considered exhausted when, at a given time, they are unavailable, non-existent or insufficient for the regular performance of its constitutional mission.

Asimismo, subraya que, as prescribed in art. 5th of the same decree, the Armed Forces may be employed to guarantee the law and order in situations in which it is presumed that disturbance of order may occur, such as those relating to official or public events, particularly those involving the participation of Heads of State or foreign governments, and the holding of electoral elections, upon request of the Superior Electoral Court.

Normally, the Armed Forces are used to guarantee the law and order in articulations with federal, state and municipal public security bodies.

Examples of contemporary use of the military instrument

Brazil's participation in the great world wars

Brazil's participation in the First World War was motivated by a series of episodes involving Brazilian ships in Europe. For example, during the month of April 1917, the merchant ship “Paraná” was found near the English Channel. In the months that followed, other Brazilian merchant vessels also closed down.

President Wenceslau Brás signed an alliance with the countries of the Triple Entente and, even though it did not have an expressive military capacity, Brazil supported them logistically with the shipment of agricultural supplies and raw materials.

In fulfillment of the commitments assumed with the Interallied Conference, the Brazilian government sent a medical mission composed of civil and military surgeons to work in field hospitals of the European theater of operations, a contingent of airmen, army and navy officers, to join the Allied Air Force, and also part of the Squadron fundamentally prepared for anti-submarine warfare.

To fulfill the attributions of the Navy, the organization of a Fuerza Tarea called "División Naval en Operaciones de Guerra" (DNOG) was determined, constituted by ships taken from the divisions that formed the Brazilian Escuadra. They became part of the DNOG: the cruisers "Rio Grande do Sul" and "Bahia"; the destroyers destroyers in "Piauí", "Rio Grande do Norte", "Paraíba" and "Santa Catarina"; the "Belmonte" supply bucket and the "Laurindo Pitta" tugboat. The total naval contingent was approximately 1,500 men. The division was tasked with patrolling the area comprising the maritime triangle, whose vertices were the city of Dakar, on the African coast, the island of Sao Vicente, on the archipelago of Cape Verde, and Gibraltar, at the entrance to the Mediterranean

Brazil's participation in the Second World War was strongly motivated by the successive drops of Brazilian merchant ships. Responding to popular pressure, Brazil declared war on the Eje in August 1942. The participation of the country in that conflict was more expressive than that of the First War.

Las operations de Brasil en el Atlántico Sur began immediately afterwards. The Armada controlled the shipping lines between North and South America. He also participated in joint and combined operations, including air and naval patrol, protection



Merchant Buque Torpedo
"Buarque" — 1942



Armada warship facing a
submarine

and escort of naval convoys and preventive actions to avoid attacks by the Eje in the Brazilian territory. The Armada was the only Naval Force of South America that participated in two of the world campaigns, guaranteeing the international trade of the Country and the attention to the supply needs for the Nation.

El Ejército sent approximately 25,000 men to fight in Europe against el Eje.

The Fuerza Expedicionaria Brasileña (FEB) joined the Quinto Cuerpo del Ejército Estadounidense (Fifth US Army). After heavy losses, the first successful operation of the FEB was the attack on the Fortress of Monte Castelo, which was occupied and garrisoned by a highly qualified enemy division.

In continuation of the success obtained, the FEB carried out its subsequent missions with equally expressive results. The first opponent force that was rindió in Italy, he did to the members of the FEB, the famous “Culebras Fumando”⁴⁸. During the Italian campaign in World War II, the FEB made more than 20,000 prisoners.



Representation of a Brazilian soldier in World War II and the symbol of the FEB - "Culebra Smoking"

The Fuerza Aérea was created during the Second World War in 1941. In 1942 it began its participation in the Patrulla Aérea Marítima de las Águas Brasileiras and in 1943 the 1st Grupo de Aviación de Caza was created. This same year a plane by the Fuerza Aérea hundió a submarine del Eje off the coast of Rio de Janeiro.

⁴⁸ The Brazilian Expeditionary Force adopted the "smoking culebra" as a symbol in allusion to what was said at that time: that it was easier than a culebra to smoke than when Brazil went to war.



Aircraft representation of the Brazilian Air Force in the Second World War and the symbol of the participation of the Air Force in the conflict

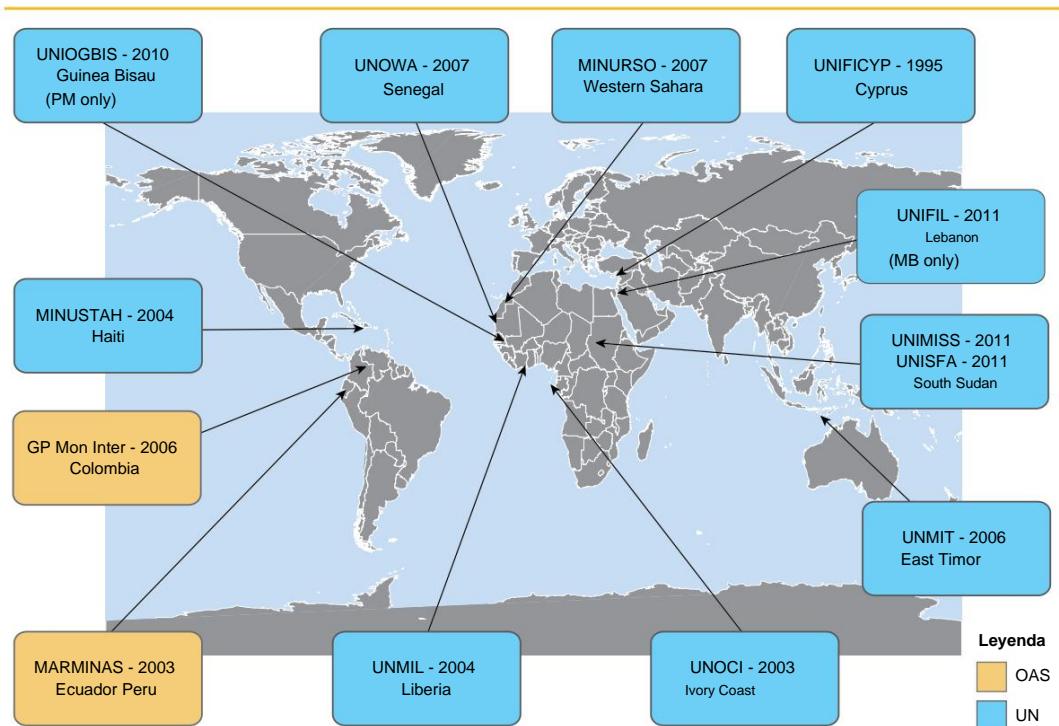
El 1o Grupo de Aviación de Caza operated in Italy from 1944 onwards and was part of the 350o Grupo de Aviación de EE.UU. (Fighter Group), performing more than a thousand missions, and stands out for being one of the three foreign air units awarded with a distinction of this country (Presidential Unit Citation).

It is also worth mentioning the participation in Italy of the 1st Escuadrilla de Conexión y Observación, which worked together with the Artillería Divisionaria, both units of the Fuerza Expedicionaria Brasileña. In this joint action, the crews of the aircraft were composed of pilots from the Air Force and airborne observers from the Army, who had artillery fire as their regular task.

Brazil's participation in peace missions

Since 1947, the country has participated in UN peacekeeping missions and has already contributed more than 30,000 military and police missions. Integrated operations in Africa (Congo, Angola, Mozambique, Liberia, Uganda and Sudan), in Central America and the Caribbean (El Salvador, Nicaragua, Guatemala and Haiti), in Asia (Camboya and East Timor) and in Europe (Cyprus and Croatia). Brazil donated troops in Suez (UNEF), Angola (UNAVEM), Mozambique (UN MOZ), East Timor (UNTAET/UNMISSET), Haiti (MINUSTAH) and, more recently, in Lebanon (UNIFIL).

An important example of Brazilian participation in peace missions is the presence of a contingent of Armed Forces in Haiti, since 2004, in the Mission for Stabilization of the United Nations known as MINUSTAH. Brazil provides more than 2,000 soldiers from the Army, the Navy and the Air Force, the largest contingent of troops among the 15 participating countries, and holds the command of that Peace Force.



Brazilian participation in peace and humanitarian missions on the march

MINUSTAH, created by Resolución del Consejo de Seguridad de las Naciones Unidas, contributed to restore the institutional normality of the Country after a long period of political instability.

Note especially the role of MINUSTAH to guarantee the realization of presidential elections in 2006 and 2010, with the peaceful transfer of power. Likewise, it is worth highlighting the important role of the UN Mission in the effort to rebuild Haiti after the very serious earthquake of January 2010.

The performance of the Brazilian military is recognized by the Haitian people and by international authorities due to their peculiar way of acting, which reflects the training received before the mission, as well as the professional training acquired in the Forces.

The mission in Haiti also gives the participating Forces the opportunity to perfect their operating and logistical systems, while maintaining the exchange with troops from other countries.

In coordination with the UN and with the UNASUR countries that make up the Mission, Brazil is planning the gradual withdrawal of its troops, as the Haitian Government demonstrates willingness and capacity to guarantee the security of the country.



President Dilma visiting Haiti

Another recent example of participation in peace missions is the presence of Brazil in the Interim Force of the United Nations in Lebanon (UNIFIL). In February 2011, a Brazilian Admiral assumed command of the Fuerza Tarea Marítima (FTM) of UNIFIL. The FTM was established in 2006 and is the first Naval Task Force that integrates a UN Peacekeeping Mission. Its mission is to prevent the entry of illegal weapons into Lebanon and to train the personnel of the Lebanese Navy. The Frigate Unión was incorporated into the FTM in November 2011 and replaced by the Frigate Liberal in May 2012. UNIFIL was created in 1978, with the purpose of maintaining stability in the region during the withdrawal of Israeli troops from the Lebanese territory.

Troop numbers in peace operations in MINUSTAH and in UNIFIL

	2004	2005	2006	2007	2008	2009	2010			2011	2012*
MINUSTAH	1,200	2,400	2,396	2,396	2,396	2,396	4,396	4,395	2,099		
FTM - UNIFIL	-	-	-	-	-	-	-	-	-	261	267

* Quantity considered until June 2012.

Expenses of the Brazilian government and transfers from the UN to MINUSTAH and UNIFIL (in Brazilian reais R\$ million)

Year	Spending by the Brazilian Government		Transfer from the ONU**
	MINUSTAH	UNIFIL	MINUSTAH
2004	148.07	-	12.59
2005	142.38	-	77.57
2006	80.67	-	51.59
2007	112.10	-	42.63
2008	127.92	-	95.01
2009	125.41	-	20.08
2010*	673.86	-	80.02
2011	245.06	43.20	125.61
2012***	14.53	6.52	18.87
Total	1,670.00	49.72	523.97

* The values for 2010 include the use of the troops, the activation of the 2nd Battalion of Infantry of the Fuerza de Paz and the resources destined to the humanitarian aid.

** There are no refunds from the UN while UNIFIL puts the memorandum of understanding still under negotiation.

*** Data computed up to June 2012.

Action by Armed Forces to guarantee the Law and Order

An example of the participation of the Brazilian Armed Forces in fulfillment of a constitutional mission, among many of the cases that have already been developed, is the performance of military personnel in the Pacification Force established in an area of needy communities in periphery of the city of Rio de Janeiro, known as complejos de Alemão and de la Penha.

This force was created by the Ministry of Defense in 2010, following a determination by the President of the Republic, to cooperate with the government of that State in establishing social peace, following acts carried out by organized crime. The Alemão-Penha Complex was occupied after coordinated actions between the Army, the Navy and the Military Police of the State of Rio de Janeiro.

The Pacification Force, constituted within the scope of the Eastern Military Command, of the Army, acted to guarantee the safety of the population until a police force was prepared to occupy the staff of the Pacifying Police Units (UPP) in the munitions. In addition to these operations, the military also carried out Civil and Social Actions (ACISO)⁴⁹, which aim to improve the quality of life of more than 400,000 inhabitants of these complexes.

⁴⁹ Concept treated in chapter 4.

Data from the Fuerza de Pacificación

strength	military staff	Committed Resources (in Brazilian reais R\$ million)		
		2011	2012	Total
Armada	148	5.4	-	5.4
army	1,800	198	135.4	333.4

La Operación Ágata is another recent example of the use of Federal troops to guarantee the Law and Order. This activity, conducted on the fringe of the border in alliance with the Ministry of Justice and Hacienda, is a joint activity of the Brazilian Armed Forces aimed at combating cross-border and environmental crimes, in coordination with other federal and state agencies. The operation was elaborated within the concept of the Strategic Plan for Borders, created by Decree No. 7,496 of June 8, 2011, whose main objectives are the neutralization of organized crime, the reduction of crime rates, cooperation with countries borders and support for people on the fringe of the border.

In the year 2011 the following operations will take place: Ágata-1, in the State of Amapá; Ágata-2, in the States of Rio Grande do Sul, Paraná and Santa Catarina; and Ágata-3, in the states of Mato Grosso do Sul, Mato Grosso, Rondônia, Acre and Amazonas. Next, in 2012, Operation Ágata-4 took place in the States of Amapá, Pará, Roraima and Amazonas.

General data on Agate Operations

	2011				2012	
	AGATE 1	AGATE 2	AGATE 3	AGATE 4		Total
military staff	3,044	8,705	7,146		8,494	27,389
ships	5	6	10		7	28
Vessels	50	60	123		57	290
Vehicles	43	64	203		65	375
aircraft	23	29	47		24	123
flight hours	587	1,324	1,499		785	4,123
Resources (In BRL million)	21.4	21.4	21.4		15.1	79.30

CHAPTER 4



MILITARES DE LA FUERZA AÉREA BRASILEÑA AND INDIOS DE LA COMUNIDAD XITEI (RR) LIFT EL PRIMER MÁSTIL PARA LA BANDERA NACIONAL

DEFENSE AND SOCIETY

“My government’s fundamental priority is to
an end to extreme poverty in Brazil. En esa lucha cuento
con las Fuerzas Armadas. Su expands experience
knowledge with social work, developed throughout
the national territory and which has reached the most
remote and remote regions, has an inestimable value for
that we could get to that primary objective.”

President Dilma Rousseff

Brasilia, April 5, 2011

The accelerated technological and social evolution has produced substantial transformations in the traditional standards of political and human relations, which has significantly affected both international relations and the security qualifications of the Brazilian State and its defense system. Acting in this context demands a high capacity for critical analysis in order to be able to understand the current situation, anticipate future scenarios, identify relevant information and translate it into a strategy that is based on the possibilities and capabilities of the technological and industrial complex of defense and on them available military resources. These long-term demands require that there be a deep and stable relationship between society and the State.

The harmonious interaction between the defense bodies and society gives a greater dynamic to the state action of providing security and defense to the country. This interaction contributes to the constant improvement of the ability to identify and analyze national security and defense orders.

The implementation of the National Defense Policy implies the ability to incorporate and process widely diversified interests and demands at the national and international level, sharing responsibilities with society, both when choosing priorities and when monitoring and evaluating of political action. The efficient management of the country's defense resources requires a balance between the proper use of the available financial resources and the capacities desired by the National Defence.

The quality of the implementation of the National Defense Policy as a government instrument is a reflection of the administrative capacity of the government, as well as of the articulations between the State and society.

Defense social programs

The Defense Ministry, together with the Armed Forces commands, created devices and programs whose implementation and application contribute to an increase in social participation in defense and security issues.

Ciudadano Soldier Project

The project is intended to qualify socially and professionally the recruits who provide the military service⁵⁰, complementing their civic training and facilitating their entry into the job market. The initiative has been in existence since 2004, covers the entire national territory and has already benefited more than 100,000 young people. The courses, given by institutions of recognized competence, include basic notions of how to be an entrepreneur, as well as ethics and citizenship. They are offered according to the demand of the regional labor market and take into account the preference of young people. Priority is given, among others, to the following training areas: telecommunication, mechanics, food, civil construction, clothing, textiles, electricity, commerce, communication, transport, IT and health. About 67% of young people enrolled in the Project obtain a professional post when they conclude military service.

Calha Norte Program

Created by the Federal Government in 1985, the program was especially intended to promote the occupation and orderly and sustainable development of the region north of the Amazon River. The program has recently been expanded to the island of Marajó, in the State of Pará, and towards the south of the Solimoes/Amazon river channel up to the limits of the states of Rondônia and Mato Grosso. The objectives of the program are achieved through different actions, such as the construction of roads, ports, bridges, schools, guardhouses, hospitals, airfields, potable water wells and electricity networks. These actions bring a great benefit to the local communities.

This program is of paramount importance for expanding the presence of the State in an area that is at the same time needy and sensible, which contributes to national defense and integration. Its influence is present in approximately 30% of the national territory, where nearly eight million people live, which includes 46% of the indigenous population.

⁵⁰ The military service, instituted by the first Brazilian Constitution, in 1824, constituted a space of integration between all Brazilian social groups and their Armed Forces. The National Defense Strategy seeks to value the military service while emphasizing its republican and democratic character. Military service is open to all citizens, regardless of social class, race or creed.

In addition to the presupposed resources that are transferred directly to the Armed Forces, the Program counts with civil acuerdos, which include the Ministry of Defence, the states and the Municipalities of the region.

The three Fuerzas participate in the Program in the following way:

Marina:

- Control and security of river navigation. •

Support for communities in the region through assistance to needy populations.

Army:

- Implementation of a basic infrastructure in the municipalities of the region. •

Deployment of military units.

- Carreteras conservation.

- Maintenance of small power stations.

- Maintenance of the infrastructure installed in the Pelotones Especiales de Frontera.

Air Force:

- Deployment of military units. • Support

by means of air transport and logistics.

- Airfield maintenance.

- Support for communities with aeromedical evacuation.

The Calha Norte Program conveys the surveillance aspect of the Amazon region, which is of political and strategic interest. It is a government and intersectional program that includes several state agencies of considerable social reach for Brazilians.

Fuerzas en el Deporte Program

The Fuerzas en el Deporte Program, developed by the Ministry of Defense together with other bodies, has the general objective of promoting social integration through sports practice. Among the planned activities, the following stand out: tutoring and school assistance, disease prevention and general educational guidance. The efforts are focused on social inclusion, appreciation of citizenship, insertion in work and physical, sports and leisure activities.

It currently benefits approximately twelve thousand children and adolescents between 7 and 17 years old. The Armed Forces make available the infrastructure, the medical, dental and social assistance services, coordinators, transport and monitors of the military organizations of the Armada, the Army and the Air Force. The Ministry of Sports is done

charge of sports material and payment of teachers and passers-by; the Ministerio de Desarrollo Social y Combate al Hambre is responsible for food; y el Ministerio de Educación supplies school supplies.



President Dilma Rousseff salutes the children who participate in the Fuerzas Program in Deporte

El Proyecto Rondón

The Rondón Project, directed by the Ministry of Defence, aims to facilitate the participation of university students in the process of sustainable local development and the strengthening of citizenship in Brazilian municipalities. It was created in 1967, as a result of sociological work carried out with students from the University of the then Guanabara State and the Escuela de Comando and Estado Mayor del Ejército.

The project provides the municipalities covered with the opportunity to receive professors and university students from various areas of knowledge who want to contribute to the community and collaborate with local leaders, working to improve the well-being of the population and the efficiency of the municipal administration .

The teams of “rondonistas” work, when they can, forming multipliers - producers, public agents, teachers and local leaders - and carrying out actions that produce lasting effects for the population, the economy, the environment and the local administration.



Universitarios del Proyecto Rondón en el apoyo a la población amazónica

In function of the great coverage of the project, the support of the Armed Forces is indispensable. The great flights are carried out on Air Force aircraft. On the other hand, the Armada de Brasil provides river trips. The units of the Army that are based in the areas of operations provide concentration, accommodation, food, local transport, as well as equipment security.

Year	Rondonistas	Municipalities served
2005	312	19
2006	1,377	91
2007	1933	128
2008	2002	143
2009	1,756	116
2010	2,400	136
2011	2,860	141
2012	1,180	59
TOTAL	13,820	833

Source: Ministerio de Defensa - Portal del Proyecto Rondón.

Subsidiary and complementary actions

Without compromising their constitutional destination, the Armed Forces carry out activities as subsidiary and complementary actions, with the aim of contributing to national development and civil defense.

Las Fuerzas participate and act directly with different sectors of society. Examples of this action are: the use of Army engineering in the construction of roads, train tracks, bridges and embalses; the aeromedical evacuation in affected regions carried out by the Fuerza Aérea; and the health support provided by the Navy hospitals. Likewise, humanitarian support must be used when accidents and natural disasters occur, such as aircraft crashes, the sinking of vessels, floods, landslides or prolonged droughts.

The military units of the Armed Forces, present in all regions of the country, relate to the communities in which they are integrated. The military participate in the life of the population, whether because they are involved in community events through civil and social actions, or not also through public health campaigns and support in the case of natural disasters. They also provide services in activities relating to the inspection of controlled products, safeguarding human life, navigation safety, airspace control and search and rescue activities.

The Employment of the Armed Forces contributes to reducing the period of response of the Federal Government in the face of contingencies. Each force performs the tasks that it corresponds to, as we can see in the following examples:

Fleet:

- Supervises compliance with traffic safety legislation on waterways.
- Controls the maritime and port professional teaching, contributing to the formation of professionals from the Mercante Marina throughout the country.
- It takes care, through the Traffic Security System for the waterways (port captains, commissions and agencies), and safeguards human life in the sea and in inland waters, is responsible for the safety of navigation and of the control of the water contamination of vessels, platforms and support installations.
- Helps, through the Buques de Asistencia Hospitalaria (NAsH), to the population in need of the Amazon and the Pantanal of Mato Grosso. Se las llama Operaciones de Asistencia Hospitalaria a la Población Ribereña (ASSHOP). Las poblaciones ribereñas conocen a los NAsH como los “buques de la Esperanza”.

- It operates in the implementation of Civil and Social Actions (ACISO) in various underprivileged communities in the country, through the recovery of schools and shelters, medical and dental care and blood donation to local entities, among others.
- Participates in humanitarian support operations with the setting up of field hospitals, including abroad.



The Armada supporting the coastal population.

Army:

- Supervises the production and trade of controlled products. •

Carry out engineering works in different regions of the Program, actively participating in the Acceleration Program (PAC) of the Federal Government.

- Offers support in natural disasters, social emergencies and public health campaigns. •

Supports, in the health and education sectors, the indigenous communities of the region Amazónica through the Pelotones Especiales de Frontera.

- Distribute water in the Northeast region.

- Supervises and controls the production and trade of war material. The activity encompasses the manufacture, import, export, customs clearance, commercialization and trafficking of weapons, ammunition and explosives.



Support of the Army in a calamity in the city of Nova Friburgo (in the state of Rio de Janeiro)

Air Force:

- Carry out, through the Comisión de Aeropuertos de la Región Amazónica (COMA RA), construction and paving works for airports and airport buildings, in addition to public roads in municipalities of Amazonia, which contributes to national integration, as access to certain locations is only available by plane or helicopter.
- It carries out Civil and Social Actions (ACISO) in needy areas and transports doctors, dentists, nurses, assistants, equipment and medicines by air to support the local population.
- Transports people, food and performs aeromedical evacuations of people in need who have suffered natural disasters. Some of these activities are carried out through the Correo Aéreo Nacional (CAN), a program that since 1931 has contributed to the integration of the national territory with air lines that serve more than 52 locations.



The Air Force supporting the Civil Defense

Mountain Operation

La Operación Serrana was an action by the Ministry of Defense in support of the Civil Defense of the state of Rio de Janeiro and the cities of the mountainous region of that state that suffered floods and landslides in January 2011.

The coordination of the activities of the Operation was carried out by the Comando Militar del Este (RJ), which was under the command of an officer from each of the Fuerzas involved in the operation: the Navy, the Ejército and the Air Force. The head of the Estado Mayor Conjunto de las Fuerzas Armadas (EMCFA), from the Ministry of Defense, carried out the operational follow-up of the federal troops.

During the operation, the Armed Forces were involved in the clearing of roads and the removal of rubble, the support to Civil Defense in the distribution of donations, medical attention and the transport of victims, rescuers and doctors.

La Operación Serrana mobilized 1,200 military personnel from the Armed Forces.

In 2011, the Armed Forces also supported the Civil Defense of the states of Goiás, Paraná, Santa Catarina and Rio Grande do Sul, in situations similar to those that occurred in Rio de Janeiro.

United Nations Conference on Sustainable Development

RIO + 20

During the period from 13 to 22 June 2012, Rio de Janeiro hosted the Conference of the United Nations on Sustainable Development, which will mark the 20th anniversary of the Conference of the United Nations on the Environment and Development (UNCED), celebrated in Rio de Janeiro in 1992, and the 10th anniversary of the Cumbre Mundial sobre el Desarrollo Sostenible (World Summit on Sustainable Development — WSSD), celebrated in Johannesburg in 2002.

The Conference was held with the participation of 120 heads of government and state. The security of the authorities in the places where the event was held – Riocentro and Aterro del Flamengo – in addition to the network of hotels, ports and airports in Rio de Janeiro, was under the responsibility of the Ministry of Defense, under the coordination of the State Mayor Conjunto de las Fuerzas Armadas (EMCFA).

The execution of the security planning was carried out by the Comando Militar del Este (CML) of the Army. In addition to the Land Force, they also participate in the actions of the Navy, the Air Force and federal and state security bodies, such as the Federal Police, the Brazilian Intelligence Agency (ABIN), the state police and the Guardia Municipality of Rio de Janeiro.

The security plan for the Conference has troops specially trained for action, prevention and reaction to terrorist attacks and chemical and bacteriological defense.

Likewise, the Cyber Defense Center set up its infrastructure at Riocentro to protect the telecommunication system from possible cyber attacks.

In total, around 24,000 professionals, 15,000 of them were Armed Forces soldiers, participated in the operation. No incident worthy of the record occurred during the holding of the Conference.

Relation of Defense with the Constituted Powers

Defense and Executive Power

The Defense Ministry, as part of the Executive Power, interacts with other ministries in the formulation and execution of public policies related to their constitutional and subsidiary attributions, through actions that become benefits for society.

Next we highlight the activities carried out by the Ministry of Defense in alliance with the other ministries, some of which have already been commented on in previous topics:

	ministries	cooperation area
ministry of la fender	Ministry of Agriculture, Livestock and Supply	Inspection of the borders to prevent the spread of diseases in Brazil.
	Ministry of Science, Technology and Innovation	National Space Activity Program – Development of the Satellite Launch Vehicle.
	Ministry of Development, Industry and Commerce Outside	Implementation of the Biotechnology Development Policy (PDB).
	Ministry of Education	Partnership with CAPES for the Program to Support Teaching and Scientific and Technological Research in National Defense (Pro-Defensa).
	Ministry of Sports and Ministry of Development Social y Combate al Hambre	Fuerzas en el Deporte Program – food, education and sports.
	Ministry of National Integration	Civil Defense – Responding to Disasters and Supporting Reconstruction.
	Ministry of Justice	Strategic Border Plan – integrated operations between public security organizations and the Armed Forces to prevent and repress transnational illicit acts.
	Ministry of Health	Campaigns for vaccination, combat and prevention against Dengue.
	Ministry of Science, Technology and Innovation, Ministry of Development, Industry and Commerce Exterior, Ministerio de la Hacienda, Ministerio de la Justicia and Ministry of Foreign Affairs	Comisión Interministerial de Control de Exportación de Bienes Sensibles – Control of exportation of chemical substances of double use, of nuclear material and of controlled biological agents.

Source: Ministry of Defense

Defense and Legislative Branch

The functional relationship between the Ministry of Defense and the National Congress takes place through the Asesoría Parlamentaria del Ministerio (ASPAR/MD) and the asesorías parlamentarias de las tres Fuerzas.

The Ministry of Defense also interacts with the National Congress through two permanent commissions that deal specifically with the theme of National Defense: the Committee on Foreign Affairs and National Defense of the Chamber of Deputies (CREDN) and the Committee of Relations Exteriors and National Defense of the Federal Senate (CRE)⁵¹.

Some of the specific responsibilities of the National Congress are the following attributions constitutionales while defending what is related to it:

- Establish and modify the number of Armed Forces (art. 48).
- Decide definitively on treaties, agreements or international acts that lead to burdensome commitments or compromises for the national heritage (art. 49).
- Authorize the President of the Republic to declare war, celebrate peace, allow foreign forces to transit through the national territory, which remain temporarily, except in the cases provided for in some complementary law (art. 49).
- Authorize the state of siege, approve the state of defense and federal intervention, or suspend any of these measures (art. 49).
- Approve initiatives by the Executive Power that refer to nuclear activities (art. 49).
- Disponer sobre el plurianual plan, the law of presumptive guidelines, the law presupposition annual post, according to what is detailed in chapter six.

In addition to these attributions, the presidents of the Chamber and the Senate are born members of the National Defense Council (art. 91), the advisory body of the President of the Republic in matters related to national sovereignty and the defense of the State democratic.

The continued strengthening of the competences of the National Congress in questions of defense helps to generate greater interest and involvement of society in the theme. It is up to the National Congress, for example, to appreciate the Libro Blanco de Defensa Nacional.

⁵¹ Since the creation of the Ministry of Defense in 1999, the Ministers of Defense have participated in 53 public hearings and three seminars organized by the permanent commissions of the National Congress.

Defense and Judicial Power

The Military Justice of the Federal Government aims to treat military crimes defined by law. Integran the Military Justice of the Federal Government, 40 judges, distributed in 12 judicial circumscriptions that are distributed throughout the national territory, and the Superior Military Court (STM), with headquarters in Brasilia.

The Federal Constitution establishes that the Armed Forces, in addition to organizing themselves on the basis of hierarchy and discipline, have the mission of defending the Homeland, as well as the guarantee of constitutional powers and, on the initiative of any of them, of ley y el orden. The national legal order provides for a complex set of norms to ensure the realization of the essential purposes of the military institutions.

The matrix of the military criminal law is the Constitution, which opens its Chapter III, relative to the Judicial Power, bringing together the bodies that integrate this power, which includes the military courts and judges (art. 92, VI). The Constitution assigns to the federal law the definition of criminals and the Military Justice the competence to prosecute and judge them (art. 124). The Military Penal Law is inscribed in the Military Penal Code. The extensive list of competences of the STM is inscribed in art. 6th of the Law no 8.457/1992, which organizes the Military Justice of the Federal Government in line with the Federal Constitution. The Military Justice of the Federal Government is composed, in the first instance, by the auditors and, in the second place, by the Superior Military Court (STM), which deals with military crimes committed by both civilians and military personnel, but not with infractions or offenses of a disciplinary or administrative nature.

The STM is made up of 15 ministers for life, appointed by the President of the Public Republic after the recommendation of the Federal Senate has been approved. Of the total number of ministers, three of them are General Officers of the Navy, four are General Officers of the Ejército, three are General Officers of the Air Force, all are active in the highest grade of the career, and the other five are civilians.

La Defensa maintains a close cooperation with the Electoral Justice. The action of the Armed Forces during the electoral process takes place after the authorization of the Superior Electoral Court (TSE), in accordance with the request of the regional courts for the use of the federal force in support of the electoral process. Therefore, at the time of the elections, on an exceptional basis, approximately 15 thousand military personnel from the Armed Forces were summoned to participate in operations, in more than 300 Brazilian municipalities, with the objective of reinforcing security during the days of vote and guarantee logistical support in the transport of cargo, ballot boxes and electoral justice professionals to remote regions of the country.

The Defense and the Human Rights

The Universal Declaration of Human Derechos was adopted and proclaimed by resolution 217 A (III) of the General Assembly of the United Nations, on December 1984. This document was drawn up so that it was the common ideal to be achieved by the peoples of all nations, which must promote respect for the rights and freedoms expressed in the Declaration. Likewise, it seeks to adopt progressive measures, both national and international, to ensure its universal and effective recognition and compliance⁵².

The 5th article of the Federal Constitution enshrines the principles gathered in the Universal Declaration of Human Rights, with emphasis on the equality of all before the Law, without distinction of any nature, which guarantees Brazilians and foreigners residing in the country that the rights to life, freedom, equality and property are not violated⁵³.

The Universal Declaration of Human Rights and the Federal Constitution are documents that guarantee respect for Human Rights in the various activities carried out by the Ministry of Defence, its military commands and subordinate bodies.

To guide the Armed Forces' staff, the Ministry of Defense issues a guideline that establishes the rules of engagement, operating procedures or general rules of action that guide the individual and collective conduct that the troop has to use, even in non-conventional operations. The rules for facing up to each mission in which the Armed Forces have to act are elaborated, in which the legal precepts in force in the Country are faithfully respected and which will constitute a limiting factor of freedom of action during self-defense and self-defence.

The Constitutional Employment of the Armed Forces in International Armed Conflicts it is also based on the International Law of Armed Conflicts (IPC)⁵⁴.

TIP is a set of international norms applied to armed conflicts that, for humanitarian reasons, limits the right of the parties to the conflict to freely choose the methods and means that will be used to manage hostilities, as well as protecting the *las personas y los bienes* affected by the referred conflicts⁵⁵. The International Law on Armed Conflicts comes from the Geneva Conventions, which are a set of laws that establish norms for the protection of victims of armed conflicts, combatants or no⁵⁶.

⁵² Universal Declaration of Human Rights, 1948.

⁵³ The 30 articles of the Universal Declaration of Human Rights are expressed in the 78 items of the 5th article.

⁵⁴ Other legal documents governing the employment of the Armed Forces: *Derecho de Geneva*, *Derecho de La Haya*, *Derecho de Nueva York* y en el *Statute de los Militares*.

⁵⁵ The basic principles of DICA are: Distinction, Limitation, Proportionality, Military Necessity and Humanity. The objective of these principles is to limit and evaluate, as far as possible, the calamities of war through the conciliation of the military with the requirements imposed by the principles of a humanitarian nature. Handbook on Employment of Armed Conflict (AIP) in the Armed Forces, 1st Edition, EMCFA, Ministry of Defense, 2011.

⁵⁶ The first convention of Geneva took place in 1864 and inaugurated what was agreed on calling for humanitarian rights. Other



Support for human rights in Haiti (MINUSTAH)

The TIP refers to the relationship between States and applies only in the case of an armed conflict. Human Derechos are characterized by their universality and indivisibility and are applicable in any situation. In this context, the State must respect civil and political rights and promote social, economic and cultural rights. Both DICA and Human Derechos are based on respect for the physical and moral integrity of the human person.

Among other factors, the growing participation of the Armed Forces in Peace Operations⁵⁷ and in Law and Order Guarantee operations, I put in evidence the need to perfect the study of Human Rights and International Law of Armed Conflicts in the various teaching institutions of the Navy, the Army and the Air Force.

In addition to observing the importance of deepening the theme and in agreement with the 3rd Plan Nacional de Derechos Humanos⁵⁸, the Ministry of Defense sent to the Armed Forces, on December 2011, guidelines for the implementation of a special program on Dere

four were held in 1949 with the objective of safeguarding and protecting the victims of armed conflicts.

⁵⁷ It is important to highlight that the Joint Center for Peace Operations in Brazil already includes a series of stages that have to do with the theme of Human Rights. On the other hand, the UN itself has distributed guidelines for working in Peace Operations.

⁵⁸ The PNDH-3 represents a permanent dialogue between the State and society, ensuring: transparency in all spheres of government; primacy of Human Rights in internal policies and in international relations; secular character of the State; strengthening of the federative pact; universality; indivisibility and interdependence of civil, political, economic, social, cultural and environmental rights; clear option for sustainable development; respect for diversity; fight against inequalities; and eradication of hambre and extreme poverty.

Human Chos, to be carried out from 2012 onwards, mandatory for all military personnel who were assigned to Misiones de Paz y de Garantía de la Ley y el Orden.

This program must attend, with the greatest possible amplitude, also to the other officers and soldiers of the Armed Forces assigned to the various Military Organizations.

The program on Human Rights will be taught in the military training schools from 2013 onwards and will be adapted to the curricular program of the postgraduate schools of the Fuerzas. With this, it is intended to converge with other initiatives in the awareness and protection of Human Rights, which will also bring the Armed Forces closer to Brazilian society and international conventions and treaties.

The Defense and the Law of Access to Information

On November 18, 2011, Law No. 12,527 was sanctioned, the Law of Access to Information, which regulates the constitutional right of citizens to access public information regarding public bodies that are part of the direct administration of Executive, Legislative, including the Courts of Accounts, and the Judicial, of the Public Ministry, of the municipalities, public foundations, public companies, mixed economy companies and other entities directly or indirectly controlled by the Federal Government, the states, the federal district and municipalities.

The aforementioned Law presents access to information as a rule, puts secrecy as an exception and alters the terms and secrecy categories of documents⁵⁹. The Ministry of Defense adjusted the classification of all its documents according to the determinations of the new law and adopted measures in attention to facilitate access and consultation to the data and documents under its responsibility, contributing to the consolidation of the democratic regime and with it strengthening of public transparency policies.

The Citizen Information Service (SIC) of the Defense Ministry, which opened in May 2012, forms part of this transparency effort. The SIC, located on the floor plan of the Ministry's building, is the sector that is responsible for guiding interested parties on appropriate procedures for consulting and accessing the Ministry's public domain information.

The White Book of National Defense and the website of the Ministry of Defense were added to the SIC as initiatives to promote the dissemination of information of general or collective interest within the scope of the Ministry of Defense.

⁵⁹ The guidance of the Minister of State for Defence, in relation to the reclassification of confidential documents within the scope of the carpet, was in the sense that, in no case, said documents could have increased secrecy.

The Defense and the Academy

In a democratic society, the academy plays an important role alongside the institutions of the State, in producing knowledge and analysis that allow breaking the limits of established truths.

The production of academic works that relate to the theme of National Defense has increased significantly in recent times and has become especially sensible after the creation of the Asociación Brasileña de Estudios de Defensa (ABED).

Although there were already academics who, in an isolated way, concentrated on the studio and the investigation of themes related to National Defence, there were no courses, programs or infrastructure that allowed a broader production of results.

The incentive for the academic space to be open to critical reflection on the fensa and, consequently, that the necessary constitutional conditions for the relevant university activities were created, arose, mainly, from the flourishing of the studio and the investigation of international relations. The awareness that the country is not immune to the risks and threats inherent in relations between States was reinforced, which I favored the sense of unity of the researchers who worked in isolation. In this way, new assignments were created in the careers of international relations and political sciences, and specific courses on Defense were instituted.

The Ministry of Defense has tried to enhance this diffusion. The National Defense Strategy sets out, as one of its strategic actions, the need to train civilian defense specialists and support programs and courses on National Defense. The objective is to promote a greater integration and participation of the government civil sectors in the discussion of the

Brazilian Association of Defense Studies (ABED)

ABED, created in 2005, is the result of the effort of a group of researchers from different origins and backgrounds, affiliated with important research institutions, concerned with consolidating the area of studies related to National Defence, national and international security, strategy, war and peace, relations between the Armed Forces, society and science and technology in the scope of the National Defence. The objective of the Association is to promote the exchange of ideas, the debate of problems relevant to this field of knowledge and the development of initiatives of common interest. The resulting intellectual output constitutes an important support, management and understanding material for public policy makers and for society as a whole. ABED produces an important synergistic effect between the academic sectors of National Defense and creates conditions for the renewal of national strategic thinking.

themes related to defense, as well as the effective participation of Brazilian society, through the academic environment and institutes and entities related to the strategic themes of defense. The Pandiá Calógeras Institute, a civil institution, will have as its main mission the deepening of relationships with the academic world.

We highlight below some initiatives of the Ministry of Defense for perfection to carry out the investigation in the Defense area.

The Pro-Defensa Program

In order to contribute to the development of these academic activities, the Coordination for the Perfection of Higher Level Personnel (CAPES) and the Ministry of Defense joined together, in 2005, in the launch of the Programa de Apoyo a la Enseñanza y la Investigación Tecnológica en Defensa Nacional (Pro-Defensa). The objectives of this program are:

- Implement academic cooperation networks in the area of National Defense in the Country.
- Train human resources at the strictu-sensu postgraduate level.
- Promote the exchange of knowledge within the Brazilian academic community.
- Encourage alliances between institutions of higher education, centers of strategic studies and military institutions of teaching and research.
- Promoting dialogue between specialists, civilians and the military on topics related to the National Defence.

PRO-DEFENSA	Application for Convocation I 2005 (2006 - 2010)	Application for Convocation II 2008 (2008 - 2012)
Enrolled / selected projects	42/11	23/16
Civil Institutions	15	25
Military Institutions	10	18
Human Resources Training	15 with doctorate 44 with mastery	15 with a doctorate 30 with a master's degree (pronostic)

Source: Ministry of Defense

Policy and strategy study centers

In addition to the centers of civil studies that deal with political and strategic issues gicos, the Ministry of Defense has several centers of studies:

- Centro de Estudios de la Escuela Superior de Guerra.
- Center for Political and Strategic Studies of the Naval War School.
- Centro de Estudios del Cuerpo de Infantes de Marina.
- Center for Strategic Estudios del Ejército.
- Centro de Estudios Estratégicos de la Escuela de Comando y Estado Mayor del Ejército.
- Center for Strategic Studies at the Universidad de la Fuerza Aérea.

These centers contribute to the synergy between Defence, the academic environment and other sectors of society through courses, symposiums, conferences, seminars, congresses and other activities related to National Defence.

Brazilian Antarctic Program (PROANTAR)

The scientific activities of PROANTAR, which have already been addressed in Chapter 2, are proposed and developed by scholars from universities and research institutions from different regions of Brazil. In an interdisciplinary and inter-institutional way, the researchers conduct investigations in the areas of earth sciences, atmospheric sciences, life sciences and also in the technological area. The projects include investigations into environmental changes in Antarctica and their global impacts, environmental monitoring and complementary studies on local fauna and flora, among others.



Oceanographic Support Buque Ary Rongel and Polar Buque Almirante Maximiniano performing at OPERANTAR

The investigations involve a large number of Brazilian scientists, with varied specializations and coming from different teaching and research institutions that develop their activities on the Antarctic continent, using as a support base the Antarctic Station Comandante Ferraz60 and the ships of the Armada (Buque by Ary Rongel and Buque Polar Almirante Maximiano).

Academic Congress

This is an initiative aimed at academic interaction between students from training schools for officers of the three forces and university students from all over the country. Annually, the Ministry of Defense publishes, in a national call, the conditions for the qualification of higher education institutions. The congress takes place at military schools and lasts approximately one week, including debates on topics of national interest, cultural and social activities.

Other initiatives

In addition to the activities already mentioned, the Ministry of Defense seeks to raise, in various ways, the level of interactivity with society and the promotion of research in the area of defense. The most recent example of this initiative was the process of the Libro Blanco de Defensa Nacional, which took place in five national seminars, in different cities of the Country, and an international one that took place in Rio de Janeiro, in addition to a contest of articles⁶¹, where young university students from all over the country had the opportunity to write about themes related to the National Defence.

Civilian personnel in the central administration of the Ministry of Defense

The labor force of the Central Administration of the Ministry of Defense is made up of 1,163 positions, of which 483 are civilians and 680 are military. As the Ministry does not have a staff of its own, the civil positions occupy 104 employees discharged from the extinct Estado Mayor de las Armed Forces, 46 reserve military personnel hired for a specified period of time, 157 employees from other public bodies and 176 employees from non-governmental origin, appointed to positions of Superior Management and Asesoramiento (DAS), according to current legislation.

⁶⁰ On February 25, 2012, the Comandante Ferraz Antarctic Station was partially destroyed by a fire. Provisional Measure No. 560, of March 7, 2012, promulgated by the President of the Republic, Dilma Rousseff, determined the recovery and reconstruction of the base in order to continue the work of PROANTAR.

⁶¹ The winning articles of the competition are available on the website of the Libro Blanco de Defensa Nacional: www.defesa.gov.br/projetosweb/livrobranco/apresentação_trabalhos.php.

With the objective of providing the Ministry with a team of its own, due to the importance and peculiarity of its activities, the National Defense Strategy foresees the creation of the career of Defense Analyst, considered a state career, with professional requirements compatible with them activities of the MD, whose Ley Project is currently being processed by the Ministry of Planning. These professionals, after having been selected by means of a public tender and having completed a specialization course in defense, in their great majority will occupy positions in the Ministry of Defense. Some of them can be distributed to other Ministries, with the interest of developing projects and programs aimed at the National Defence.

It is worth emphasizing that the predominance of the current staff of civil servants is attributed to the following civil bodies: Cabinet of the Minister of State for Defence; Secretariat for Institutional Organization; Secretary of Defense Products; Secretariat for Teaching, Personal, Health and Sports; Management Center of the Amazon Protection System; Legal advice; and Secretariat of Internal Control. The participation of civil servants is registered, in smaller numbers, in the Estado Mayor Conjunto de las Fuerzas Armadas.

Defense and industrial development

The National Defense Strategy (END) promotes the development of the national defense industry and technological independence as indispensable guidelines for properly equipping the Armed Forces and for the national development itself.

Satisfying the equipment needs of the Armed Forces will focus on the national minimum of advanced technologies. The restructuring of the Brazilian industry of defense products is the direct result of this decision. Guideline No 22 of the END institutes the need to train the national industry of defense products so that it conquers autonomy in technologies that are indispensable for the defense.

For that, the Ministry of Defense, through the Secretariat of Defense Products (SEPROD), has encouraged measures and participated in activities aimed at improving the national industry of defense products. Next, we highlight the main initiatives: 1. Creation of the Commercial Promotion Center (NPC-MD)

Directive 1116 , approved by the Minister of Defense in April 2012, instituted the Commercial Promotion Center. The NPC-MD has the purpose of elaborating actions vol.

each provides the incentive for the development and commercial promotion of Brazilian defense products and the attraction of capital and technologies that can be used in the development of defense or dual-use products.

2. Collection of data from the Defense and Incentive Industrial Base to increase exports

The Defense Ministry and the Brazilian Industrial Development Agency (ABDI) are collecting complete data from the Defense Industrial Base (BID) with the aim of diagnosing the capabilities and potential of this important sector of the national economy. This work is of fundamental importance to establish incentive policies for national industry. La Base Industrial de Defesa (BID) brings together around 500 companies today.

Currently, a large part of the Brazilian export basket is based on products with low technology and, therefore, with low added value. Bearing in mind that the total world military expenditure is around 1.5 billion US dollars and that Brazilian exports have reached around one thousand million US dollars – which represents 0.067% of the global total – we see that the potential that opens for the IDB is really important.

The Defense Industrial Base provides the country with a real alternative in what concerns the alteration of this frame and can contribute to the increase in the technological content of the Industrial Base exports. The Ministry of Defence, the Ministry of Development, Industry and Foreign Trade (MDIC) and the Brazilian Agency for the Promotion of Exports and Investments (APEX) are looking for market items in which the Brazilian defense industry can be competitive, supporting them Brazilian companies at fairs and other international events.

3. Regulatory frameworks to strengthen the defense industry

Directive No. 22 of the National Defense Strategy defines the need to establish special legal, normative and tax regimes to protect national private companies of defense products against the risks of mercantile immediacy and to ensure continuity in public procurement.

To achieve this objective, the Ministry of Defense is developing regulatory frameworks in line with the public interest and the requirements for promoting the national IDB. As an example, we highlight the National Policy for the National Defense Industry (PNID), a document that will guide all SEPROD paths, Law No. 12,598, of March 22, 2012, and the National Product Export Policy Defense (PNEPRODE), which innovates in terms of the initiative to include a Support Program for Exports.

4. Development of Science and Technology

The Defense Ministry is acting in alliance with the Ministry of Science, Technology and Innovation (MCTI) to maximize and optimize the research efforts in the military scientific and technological institutions in favor of the development of cutting-edge technologies for the defense system.

The Financiadora de Estudos y Proyectos (FINEP) of the MCTI supports some defense projects, such as the SABER M60 radar, the development of permanent magnets for naval propulsion and the development project of precursor fiber for the manufacture of carbon fiber.

5. Interlocution with the Brazilian companies dedicated to the defense sector

National Council for Industrial Development

The Defense Minister has a direct commitment to the National Council for Industrial Development, which makes proposals to the President of the Republic on national policies and specific measures to promote the country's industrial development.

These Policies are focused on: infrastructure activities supporting production and marketing; the regularization of measures that allow greater competitiveness of the companies that make up the industrial sector; and the most consistent funding and the scale of entrepreneurial activities. This is another instrument available for the promotion of the Defense Industrial Base.

ABIMDE and Federations of Industries

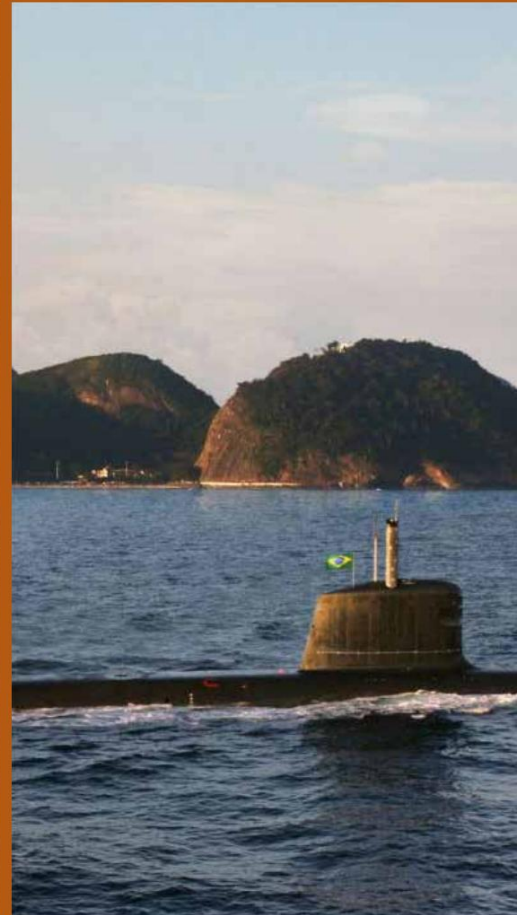
The Ministry of Defense has established a fruitful relationship with the industries in defence, through representative bodies such as the Asociación Brasileña de las Industrias de Materiales de Defensa y Seguridad (ABIMDE) and the Federations of Industries.

The Committee for the Productive Chain of the Defense Industry (COMDEFESA) of the Federation of Industries of the State of Sao Paulo (FIESP) holds plenary meetings to assess regulations, policies and other topics related to defense. The agenda for the meetings is referred to SEPROD, which seeks mechanisms that contribute to meeting and solving the demands presented.

A large part of the relationship between the Ministry of Defense and the related business sector is carried out through ABIMDE. The Association is a non-profit civil entity that has the mission of bringing together, representing and defending the interests of associated companies while contributing to the formulation of public policies for the defense sector. Today ABIMDE counts with several affiliated companies.

The contact with the aforementioned bodies allows the Ministry of Defense to have a broad interaction with the national production chain, providing a better understanding of its potential, obtaining essential subsidies for the correct direction of government development policies and also interaction with foreign companies interested in making investments or alliances in Brazil.

CHAPTER 5



strategic defense projects

THE TRANSFORMATION OF THE DEFENSA

“We must conceive and approve a mechanism that allows providing predictability, stability and perennality to the projects of equipment and technological development of the Armed Forces.”

Defense Minister Celso Amorim
Brasilia, August 8, 2011

The concept of transformation in the field of Defense emerged in the 1970s, from the discussion on Evolution in Military Affairs (EAM) and Revolution in Military Affairs (RAM), which signaled the need to periodically break paradigms . In order to provide a better understanding of the limits of current theories, the transformation changes thought patterns, generates new capabilities and concepts. It makes it possible to respond in an innovative way to unexpected challenges. By developing skills, it allows you to accomplish new tasks and perform modern functions in combat.

The effectiveness of a transformation process is proportional to the capacity to acquire and use cutting-edge technology in the research and development phases of new weapons systems and platforms. As can be seen in the various examples available, this process is long-lasting, being able to extend for 20 years or more.

The changes demand the development of new doctrines for the use of troops, with the aim of making the military forces better able to act in a multifaceted operating environment.

In the case of Brazil, the transformation of the Defense, in addition to enabling greater citation capacity of its Armed Forces, will create a range of opportunities for economic growth. This occurs through three aspects:

- Defence Articulation and Equipment Plan (PAED).
- Modernization of management.
- Reorganization of the Defesa Industrial Base.



Virtual Model of the Dockyard/Submarine Base in Itaguaí

Plan of Articulation and Equipment of Defense (PAED)

The PAED coherently embodies the strategic projects of the Fuerzas Armadas that propose to meet the demands for new defense capabilities.

The projects of PAED, both those of articulation in the national territory, as well as those of acquisition of equipment, need specific presupposed resources to make them viable. To this end, the projects must be part of the programmatic structure presumed to be part of the successive Pluriannual Plans of the Union (PPA) within a time horizon of 20 years (2012 to 2031).

Below will be described some priority projects of the Armed Forces which, articulated and coordinated by the Ministry of Defense, make up the PAED.

Brazil Navy

The Navy, with the purpose of increasing Naval Power, complying with the guidelines of the National Defense Strategy, chose its priority strategic projects in order to achieve increasing independence in obtaining its means with regard to the outside world. Thus, these projects have as one of their main objectives the strengthening of the Brazilian Defense Industrial Base, enabling it to design, develop and build medium and high and medium complexity naval systems. The priority projects of the Armada in the PAED are the following:

Table of Priority Projects for the Navy		
 Armada Priorities	1 - Recovery of it Operating Capacity 	2 - Nuclear Program Armada 
	3 - Construction of the Nucleus of Naval Power 	4 - Administration System from the Blue Amazon 
5 - 2nd Fuerza de Infantes de Marina de la Escuadra 	6 - Personnel 	7 - Security of Navigation 

1. Recovery of Operating Capacity

It consists of the revitalization and modernization of the logistical and operational structures of the Navy, as well as of naval, naval air and Infantes de Marina. It also includes supplementation of conventional ammunition and operational maintenance.

2. Nuclear Program of the Navy (PNM)

El PNM includes the development of the fuel cycle; the construction and validation of the Core-Electric Energy Generating Laboratory (LABGENE); the construction of a prototype reactor type PWR62, base for the reactor of the primer Submarino de Propulsión Nuclear Brasileño (SNBR); and the strengthening of the Armada Technological Center in Sao Paulo (CTMSP).

The PNM and the Submarine Development Program (PROSUB) are closely related. The viability of PROSUB depends on the development of the clear propulsion system, focus of the PNM.

62 Pressurized Water Reactor (PWR).

3. Construction of the Nucleus of Naval Power

The project is absolutely necessary, on the ground to modernize the Armada, but, also, to enable the gradual replacement of the naval air combat platforms and Infantes de Marina that have time to be deactivated due to wear and tear and the resistance limit of los midos. The limit of the life cycles of the materials is already established, which makes the fulfillment of the program essential. It is about expanding the operating capacity of the Brazilian Navy. Within its reach stand out:

- The development of submarines (PROSUB), which provides for the construction of four new conventional submarines and a nuclear-powered submarine, in addition to a shipyard and submarine base to support these units, as described in chapter 3.
- Obtaining surface measurements (PROSUPER), which aims to develop the capacity to design and build, in Brazil, five escort ships, five ocean patrol ships of 1.8 thousand tons and a logistical support ship. If found in analysis, the proposals presented by interested shipyards.
- The project and the construction, in Brazil, of 27 patrol boats of 500 tons, of which two were already received and five others are under construction in the country, with delivery expected up to 2014.
- Obtaining an amphibious medium – a landing ship for tanks (NDCC) or a landing ship for tanks (NDD). The Amphibious Buque Obtaining Program (PROANF) began research seeking to achieve, abroad, an amphibious buque project, approved and operated by other Armadas, for future construction in a national dockyard.
- Obtaining Aerodrome Buques (PRONAE), which aims to design and build a unit for the Primera Escuadra and another for the Segunda Escuadra. El PRONAE analyzes alternatives for the development of a national project or in a company with the outside world.
- La creación de Batallones de Operaciones Ribereñas de Infantes de Marina. After installing the Batallón de Manaos, the transformation of the Grupo de Infantes de Marina de la Armada de Belém will be completed by 2017.
- The recent acquisition, by chance, of three ocean patrol boats of 1,800 tons sides, which will be incorporated into the Armada until 2013.

4. Blue Amazon Administration System (SisGAAz)

The SisGAAz, whose total implementation is expected to occur until 2024, will allow the monitoring and control of the Brazilian jurisdictional waters and will provide the following benefits:

- Greater security of the Blue Amazon.

- Increased efficiency in inspection and search and rescue operations in the Blue Amazon, expanding operations between agencies (Federal Police, Brazilian Institute of the Environment and Renewable Natural Resources and others).
- Dual-use structure, civil and military, being able to be applied in the prevention of environmental contamination, meteorology, control of scientific research in the sea, control of the genetic heritage, prevention and repression of traffic and in the security and defense of the area of pre-salt.

5. Complejo Naval de la 2a Escuadra / 2a Fuerza de Infantes de Marina de la Escuadra (2a FFE)

The National Defense Strategy established a specific guideline for the installation of a square in the North/Northeast regions of the country, in a location closer to the mouth of the Amazon River. For the execution of this project, even in a studio, it is necessary to establish an entire industrial and logistical infrastructure in the region that will receive the squadron. Finalization of the project is scheduled for 2031.

6. Staff

It refers to the expansion of sectors of the MB related to the organizations of the Naval Education System, of Support to Health and Social Assistance, as well as in the construction of Propios Nacionales Residenciales (PNR) to meet the consequent needs of the increase in the force of the Naval Force.

7. Seguridad de la Navegación merchantante

This is the expansion of the presence of the MB in the Amazon, in the Midwest and in border areas, increasing surveillance in the large river basins, in addition to the creation and expansion of military organizations of the Traffic Security System Aquatic (SSTA)⁶³, and naval resources to support the activities. With total implementation planned for 2031, the following goals stand out:

- Creation and elevation of the category of captaincies, commissioners and river agencies.
- Strengthening of SSTA organizations in the Amazon basin and in the basin Paraguay-Paraná.
- Construction of vessels and fluvial hydrographic warnings.

⁶³ The SSTA is made up of Port Captains, Comisariás and Agencias de la Armada, fluvial or maritime, which have the purpose of acting in the safeguard of human life, in the safety of navigation, in the open sea and in the inland waterways and in the prevention of water contamination by vessels, platforms or their support installations, as well as contributing to the guidance, coordination and control of activities related to the Mercante Marina and correlated organizations in which it refers to the National Defence.

Project completion forecast and estimated global value

Projects	Expected Period*	Estimated Overall Value (in BRL million)
1. Recovery of Operating Capacity	2009 - 2031	5,372.30
2. Nuclear Program of the Navy (PNM)	1979 - 2031	4,199.00
3. Construction of the Nucleus of Naval Power	2009 - 2047	168,020.80
4. Blue Amazon Administration System (SisGAAz)	2011 - 2033	12,016.60
5. Complejo Naval de la 2a Escuadra / 2a Fuerza de Infantes de Marina de la Escuadra (2a FFE) -	2013 - 2031	9,141.50
6. Staff	2010 - 2031	5,015.60
7. Navigation Security	2013 - 2031	245.10

* It is noted that some projects, due to their complexity, exceed the scheduled period for the PAED and that others were already underway before the implementation of the PAED. The values depend on the approval of the Federal Government.

In order to fulfill the demands of the National Defense Strategy, in addition to the priority projects addressed, the Navy will need to increase its number of military and civilian personnel.

Law no 12.216/2010 allows, until 2020, to increase the existing staff. For 2030, studies have established the need for an increase of approximately 80% in relation to the current workforce.

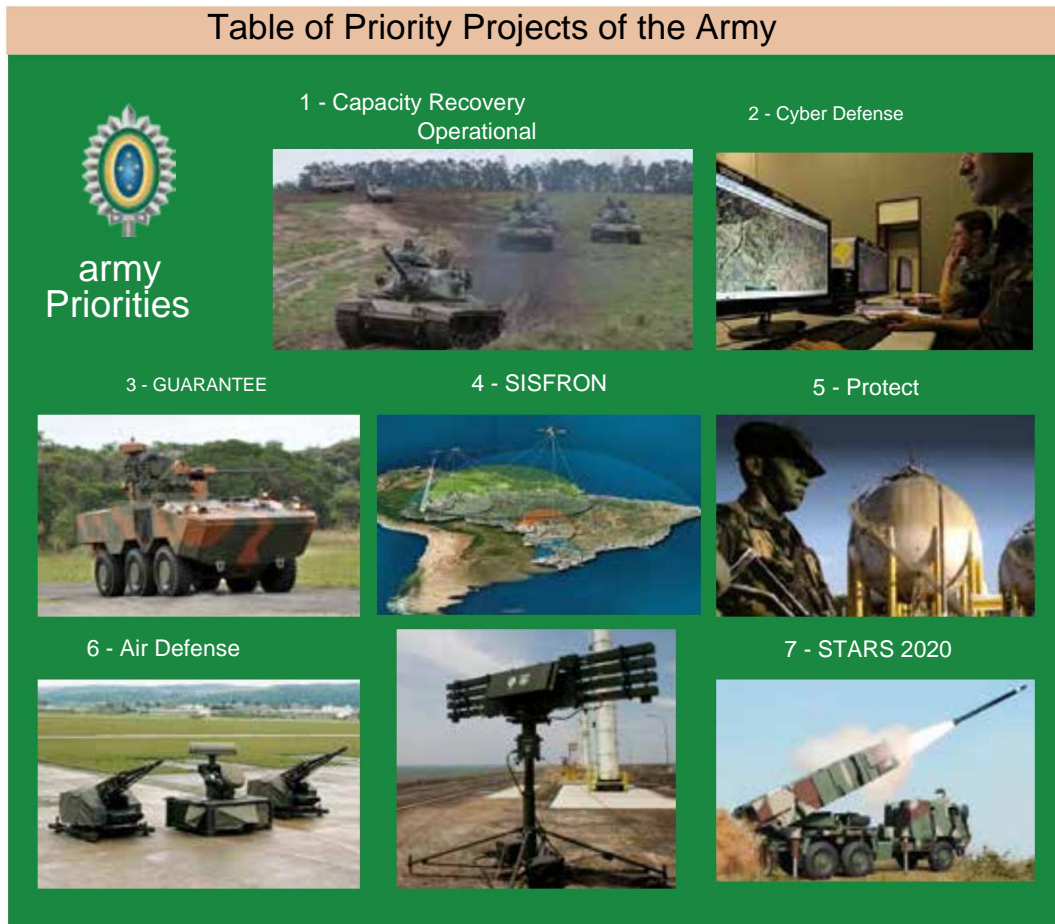
Existing (2012)	Authorized (2020)	End result (2030)
65,528	80,507	115,370

As for civilian personnel, the Navy accounts for 48% of the total number of servers authorized. The same studios established the need for an increase to 21,020, until 2030.

Existing (2012)	Authorized (2012)	End result (2030)
6,666	12,917	21,020

Brazilian army

The priority strategic projects have the objective of training the Brazilian Army Brigades with equipment, weapons, means of transport and provisions in a quantity compatible with the demand and the desired level of modernization. It must provide the Terrestrial Force with the capacity to be used effectively in external defense operations, in law and order guarantee operations (GLO), in subsidiary actions in support of Civil Defense and environmental protection and security actions at major events. The Ejército defined the following priority projects:



1. Recovery of Operating Capacity

The project includes:

- Modernization and revitalization of the Army's aviation equipment; M60 tanks, Leopard 1A1; and of the M113, Urutu and Cascavel armored vehicles.
- Acquisition of river vessels, vehicles, equipment and field artillery material; of individual armament technologically superior to that currently used; and ammunition, armament and collective equipment.
- Acquisition of the new IA2 rifle, developed and produced in Brazil by IMBEL64, which complies with the Joint Operational Requirements (ROC) of the Armed Forces approved by the EMCFA.

64 IMBEL — Industria de Material Bélico de Brasil, the country's oldest defense product factory.

2. Cyber defense

As mentioned in Chapter 3, the Ejercito is responsible for the Cybernetic Strategic Sector, which includes a series of specific measures, articulation and equipment, to allow the consolidation of the sector. The ability to preserve the integrity of strategic structures that can be immune to cyber attacks in different ways is of fundamental importance for the country. Below are listed some short-term actions envisaged for cyber defense:

- Construction of the permanent headquarters of the Cyber Defense Center and acquisition of the support infrastructure.
- Acquisition of equipment and training of human resources. • Acquisition of hardware and software solutions for cyber defense.
- Implementation of structuring projects for the Cybernetic Sector, expanding the capacity to respond to threats.

3. Project Guarani

The Guarani Project consists of the implementation of the New Family of Armored Vehicles (NFBR) of the Brazilian Army, designed to equip the mechanized units with new armored vehicles that incorporate the most recent trends and technological evolutions. In the context of the National Defense Strategy, the project contributes to the acquisition of new capabilities, strengthening the Brazilian industry with the acquisition of dual technology.

The acquisition is planned, over a period of 20 years, of 2,044 armored vehicles for the transport of Guarani personnel (VBTP) of Brazilian design. The new VBTP went through the evaluation tests and the Brazilian Army received its first unit in June 2012.

The Guarani Project also includes several subprojects, among which stand out: Investigación and Desarrollo, Soporte Logístico Integrado (SLI), Nationalization of Munición, Professional Training, Infrastructure, Command and Control, Simulation, Doctrine and Management.

The NFBR includes a medium subfamily – reconnaissance, personnel transport, death rover, assistance, command station, radio station, central fire director, workshop and ambulance – and a light subfamily – reconnaissance, anti-car, light mortar, radar, command and advanced observation.



Guarani Armored

4. Integrated Border Monitoring System (SISFRON)

El SISFRON is a monitoring system integrated with the other similar systems that it will vary the command and control capacity of the Terrestrial Fuerza, allowing to reduce the response time before the possible threats in areas of interest, with special attention to the Amazon Region. Currently, the project is in the bidding phase for the installation of a first module based on the 4th Mechanized Caballería Brigade, in Dourados (MS).

5. Integrated System for the Protection of Land Strategic Structures (PROTEGER)

El PROTEGER is a complex system, composed of units of the Terrestrial Force, aimed at the protection of Terrestrial Strategic Structures (EETer). Such structures are defined as installations, services, goods and systems whose interruption or total or partial destruction could become a serious threat to the security of the State and society.

The relevance of the system is evident in view of the finding that 90% of the strategic structures are located on Earth, being responsible for 56% of the energy matrix and 96% of the country's GDP.

The system will cooperate with other organizations with related activities through prevention, alert and protection actions aimed at minimizing consequential risks from natural causes or caused by human beings, such as sabotage, terrorist attacks and organized crime.

Benefited by the capillarity and presence of the Brazilian Army and its mobile reserve throughout the national territory, PROTEGER will be integrated with the other systems of

existing security in the country and, under the supervision of the Ministry of Defence, the Land Operations Command will have as its executive body.

6. Air Defense System

The project is intended to update the existing air defense system in the Army, with the aim of meeting the requirements of the Brazilian Aerospace Defense System (SISDABRA). The anti-aircraft artillery units will be re-equipped with modern means and sensors and assisted by an integrated logistical system to support the equipment during its life cycle.

7. ASTROS 2020 Missiles and Cohetes System

The ASTROS 2020 is a defense system that aims to meet a specific demand in strategic terms of the Brazilian Army, which consists of providing the Terrestrial Force with means of fire support with a high capacity for deterrence, through the national development of a missile with a range of up to 300 km. El Ejército will count on two groups of Launchers of Missiles and Cohetes.

Project completion forecast and estimated global value

In order to meet the priority strategic projects established by the Army in its Plan of Articulation and Equipment, it is necessary to increase the effective number of military and civilian personnel in a period of time of 20 years.

Projects	Forecast period*	Estimated Overall Value (in BRL million)
1. Recovery of Operating Capacity	2011 - 2022	11,426.80
2. Cyber defense	2010 - 2023	895.40
3. Guarani	2011 - 2034	20,865.70
4. Integrated Border Monitoring System (SISFRON)	2011 - 2023	11,992.00
5. Integrated System for the Protection of Land Strategic Structures (PROTEGER)	2012 - 2031	13,230.60
6. Air Defense System	2010 - 2023	859.40
7. ASTROS 2020 Missiles and Cohetes System	2011 - 2023	1,146.00

* It is noted that some projects, due to their complexity, exceed the scheduled period for the PAED and that other projects were already underway before their installation. The values depend on the approval of the Federal Government.

Currently, the staff authorized for the Army, by Law No. 7,150, of 1983, is 296,334 soldiers. In terms of strategic planning, the current manpower increase is estimated at approximately 20,000 military personnel, based on the following initiatives:

- Transformation of Motorized Infantry Brigades⁶⁵ into Infantry Brigades Mechanized⁶⁶.
- Creation of another Jungle Infantry Brigade⁶⁷.
- Implementation of SISFRON and the Cybernetic Sector.
- Replacement of personnel in the various systems of activities of the Army.

Of these personnel, 13.1 thousand are temporary soldiers and 6.9 thousand are career soldiers.

Existing (2012)	Authorized (2012)	Consequent of the END (2030)
204,744	296,334	223,344

The cadre of civil servants of the Army has a forecast of 12,619 positions, of which 7,312 are occupied, which results in 5,307 plazas. The evolution of the server tables is planned for 22 thousand, which should be achieved by the year 2030.

Existing (2012)	Authorized (2012)	Result of the END (2030)
7,312	12,619	22,000

Brazilian Air Force

With a permanent focus on its constitutional mission to maintain the sovereignty of Brazilian airspace, aiming at the defense of the Homeland and, for that matter, based on the objectives defined in the National Defense Strategy – priority of air surveillance, power (air) to ensure air control at the desired level, joint operational mobility capacity and domain of compatible air and strategic potential –, the Brazilian Air Force, privileging indigenous solutions, established strategic projects seeking institutional sarrollo and strengthening of the media, between three major axes: organizational, scientific, technological and operational. Next, the priority strategic projects of the Air Force:

⁶⁵ Motorized Infantry Brigade: large operational unit, equipped with vehicles on wheels, without armor, destined the transport of personnel and material.

⁶⁶ Mechanized Infantry Brigade: large operational unit, equipped with armored vehicles on wheels, with major combat power, in support of the troop. It will be completed with new GUARANI vehicles.

⁶⁷ Jungle Infantry Brigade: large operational unit with a vocation to fight in the Amazon region, with emphasis on the protection of the borders.

Cuadro de los Proyectos Prioritarios de la Fuerza Aérea

 **Air Force Priorities**

1 - Organizational Management and Operative of the Command of Air Force	2 - Recovery of it Operating Capacity	3 - Control of Air Space
		
4 - Operational Training of the FAB	5 - Scientific Training Tecnológica de la Fuerza aerial	6 - Strengthening Brazilian Air, Space and Defense Industry
		
7 - Development and Construction of Special Artifacts	8 - Support for the Military and Civilians of the Command of the Air Force	9 - Modernization of Training Systems and Post-Training Resources Humans
		

1. Organizational and Operational Management of the Air Force Command

The objectives of this project are to guarantee integration between the strategic areas involved; carry out the military strategic management of the Air Force; increase the efficiency of internal processes and systems; and adjust the aeronautical and airport infrastructure. Among the planned actions, the following stand out:

- Adequacy of air bases and expansion of alternative runways.
- Merger and redistribution of logistical and administrative organizations.
- Transfer of air units to the North and Midwest regions.

2. Recovery of Operative Capacity In a modern

Air Force, the management of projects demands a process of constant performance evaluation and selection of alternatives to replace, modernize, develop or revitalize the aircraft and its systems, aiming to strengthen and maintain its operational capacity of the Force. This process is called Recovery of Operative Capacity, observing criteria enshrined as international efficiency standards among modern Air Forces.

Involves training and training activities for pilots, recomposition the stock of armament and the technological update of aircraft, such as:

- AMX and F-5 fighters — A-1M and F5-M projects.
- Maritime Patrol P-95 — Project P-3-BR.
- Transport and refueling — KC-130 and C-95M projects.
- Recognition — Project R-99. • Control and alarm on flight — Project Y-99.

3. Air Space Control

The Brazilian Air Space Control System (SISCEAB), based on the civil/military ambivalence, resulting from the integration of the means used, provides the necessary infrastructure for the surveillance and management of the Brazilian air space, in order to guarantee the continuity of in the management of the General Air Circulation, the Military Operative Circulation and the Aerospace Defence, throughout the Brazilian territory.

The increase in air traffic and overload in the terminal regions requires the implementation of new technologies seeking to support the safe and efficient operation of air transport in the country. Some of the actions include the modernization of the Aerospace Defense Operations Center (CODA) and the adaptation of the aircraft to the new CNS/ATM68 satellite navigation and control system.

⁶⁸ CNS/ATM — World-wide program for the modernization of air traffic control, in which the acronym CNS stands for: Communication, Navigation and Surveillance, and ATM stands for Air Traffic Management.

4. Operative Training of the Brazilian Air Force

This project has the objectives of optimizing the processes, systems and operating activities, as well as carrying out the operating equipment of the Brazilian Air Force. It is imperative that the Air Force has an effective, reliable and perceptible military capacity that represents the essence of the dissuasion it has to defend the values and welfare of the Brazilian nation.

- FFX-2 - acquisition of 36 multiple mission fighter jets to replace the Mirage 2000.
- HX-BR - acquisition of 50 medium-sized EC-725 (H-36) helicopters, produced in Brazil, by HELIBRAS. It is in the initial phase of aircraft distribution for the three Armed Forces (16 for the Brazilian Navy, 16 for the Brazilian Ejército, 16 for the Brazilian Air Force and 2 for the Presidency of the Republic).
- AH-X - acquisition of 12 attack helicopters AH-2 Saber (MI-35). Six units are already in operation on the Brazilian Air Force, awaiting reception of the other six and the respective flight simulator.
- H-60 - acquisition of 16 medium-sized Black Hawk helicopters to replace the UH-1H, which are in the decommissioning phase and may become obsolete. 14 aircraft were received, the last two being in the final reception phase.
- KC-X2 - acquisition of two large aircraft for transport and refueling in flight, with the purpose of replacing the KC-137 planes (Boeing 707). It is in the selection phase, under the responsibility of the Aerospace Science and Technology Department.
- VU-Y - acquisition of 10 transport aircraft, focusing on the national industry, to replace the VU-35 (Lear-jet) aircraft of the Grupo de Transporte Especial (GTE) and the EC-93 (HS-800) of Grupo Especial de Inspección en Vuelo (GEIV), these are used in the measurement of radio navigation equipment (inspección en vuelo). It is in the studio stage.
- ARP (Remotely Piloted Aircraft, also called UAV – Unmanned Air Vehicle) – of the units acquired for doctrinal consolidation of use, being created the 1st Squadron of the 12th Aviation Group (1st / 12th) for its operation. The national industry embarked on the process of developing a national model in society with an international company, with the obligatoriness of technology transfer.

- CL-X - 2nd Batch: acquisition of six CASA 295 medium aircraft, three for Transport Squadrons and three for Search and Rescue Units. The acquisition process is underway under the responsibility of the Aerospace Science and Technology Department.

5. Scientific and Technological Training of the Air Force

This project aims to invest in the capabilities that guarantee technological independence in the manufacture of aerospace defense equipment. Other objectives that will be pursued are the development of link technologies and the necessary training that will allow Fuerza Aérea Brasileña to operate on a network, both internally and as a whole.

Among other actions, the project foresees the development of the following

aircraft: • RX, for Air Reconnaissance missions. •

YX, for Control and Alarm.

• IX, for Flight Inspection.

• F-XBR, multiple mission fighter that will replace the main combat aircraft currently in operation. • ARP, which

will be developed for common use by the three Forces that, at the present time, are jointly preparing the Joint Operating Requirements (ROC) necessary.

6. Strengthening of the Brazilian Aerospace and Defense Industry

This project aims to expand integration with the Brazilian aerospace industry and defense industry, as well as contributing to greater competitiveness of the products offered by these sectors in the domestic and foreign markets.

This is a national project, in which the action of development and production of the National Transport and Refueling Aircraft (KC-390) stands out, which will provide the country with the possibility of exports, providing the duplication of the industrial installations of the EMBRAER in the interior of the State of Sao Paulo, representing an important mechanism for strengthening the Brazilian aerospace park.

7. Development and Construction of Aerospace Artefacts

The space activities, developed within the scope of the National Program for Space Activities (PNAE), seek the use of outer space as a means of support for defense activities. In addition to the development of launch vehicles, Fuerza Aérea, together with the Ministry of Defense and other Forces, will establish the necessary requirements for the development of geostationary satellites for safe telecommunications and meteorology, in order to guarantee the effective command and control with national means.

The project has the objective of qualifying launch vehicles (discussed in chapters 2 and 3), promoting launch campaigns and optimizing the necessary infrastructure for the provision of these services.

8. Support for the Military and Civilians of the Air Force Command

In the scope of the activities intrinsic to the military profession, the maintenance of spirit and courage, specifically, in combat conditions, is not born spontaneously. Thus, the relevance of the actions that result in well-being and maintenance conditions for the morale of the military personnel is imposed, highlighting the actions for the provision of subsistence and management materials that support the routine of the barracks, both in time of peace when in crisis and conflict situations. Consequently, this project has the objective of providing better conditions for the human capital of the CO MAER, aiming at the total fulfillment of the Mission of the Air Force. The following actions stand out:

- Increase the availability of Propios Nacionales Residenciales.
- Modernize Fuerza Aérea's food management.
- Optimize the attention of the Health Service and the Asistenciales de la Fuerza programs Aerial.

9. Modernization of Human Resources Training and Post Training Systems

The increase in military personnel in the Air Force will require an increase in the number of personnel who will graduate from military schools. It is therefore necessary that they be adequately prepared for teaching and support activities, efficiently guaranteeing a high level of training, qualification and qualification of human resources at COMAER.

Among the planned actions, the expansion of the teaching infrastructure and the creation of facilities for training pilots in the hostile physiological environment of the cabin of a combat aircraft stand out.

Project completion forecast and estimated global value

In order to meet the priority strategic programs established by the Air Force in its Plan of Articulation and Equipment, it will be necessary to increase the number of personnel in the military and civil sectors, in a period of time of 20 years.

Projects	Forecast period*	Estimated Overall Value (in BRL million)
1. Organizational and Operational Management of the Air Force Command	2010 - 2030	5,689.00
2. Recovery of Operating Capacity	2009 - 2019	5,546.70
3. Air Space Control	2008 - 2030	938.30
4. Operative Training of the Brazilian Air Force	2009 - 2030	55,121.00
5. Scientific and Technological Training of the Air Force	2008 - 2033	49,923.90
6. Strengthening of the Brazilian Aerospace and Defense Industry	2009 - 2030	11,370.20
7. Development and Construction of Aerospace Devices 8. Support to the Military and Civilians of the Air Force Command	2015 - 2030	It will be determined by the PNAE
	2010 - 2030	3,229.60
9. Modernization of Training Systems by Post-Training of Human Resources	2010 - 2028	352.00

* It is observed that some projects, due to their complexity, exceed the scheduled period for the PAED and that others were already underway before the installation of the PAED. The values depend on the approval of the Federal Government.

Currently, the staff authorized for the Fuerza Aérea, by Law No. 11,320, of 2006, and subsequent amendments, is 80,937 military personnel. Studies indicate that, in order to comply with the END, an increase to 105,000 military personnel is necessary by 2030.

Existing (2012)	Authorized (2012)	End result (2030)
69,093	80,937	105,000

The staff of civil servants of the Brazilian Air Force has a forecast of 9,664 positions, of which 6,291 are occupied, which results in 3,373 seats. The evolution of the cadres of civil servants is planned for more than 22 thousand, which will occur, possibly, until the year 2030.

Existing (2012)	Authorized (2012)	End result (2030)
6,291	9,664	22,255

Central Administration of the Ministry of Defense

In the PAED, the Central Administration of the Ministry of Defense directly manages six projects, including four in the Estado Mayor Conjunto de Fuerzas Armadas and two in the Centro Gestor y Operativo del Sistema de Protección de Amazonia. Son

- ellos: • Satellite Military Communications System (SISCOMIS).
- Secure Military Communications System (SISTED).
- Development of the Defense Logistics and Movilización System (SISLOGD).
- Modernization of Air Defense of the Strategic Structures⁶⁹.
- Modernization of the Amazon Protection System.
- Cartography of Amazonia.

Positive effects of the implantation of the PAED

With the realization of the projects inserted in the PAED, the country will be better prepared to face the defense challenges. The PAED projects will generate several benefits to society and the Brazilian Defense Industrial Base. Son benefits identified, among others:

1. In the military camp

- Increase in the country's dissuasive power, avoiding adverse actions by others States.
- Greater possibility of cooperation with neighboring Armed Forces.
- Contribution to the prevention and fight against new threats, as well as in the fight against drug trafficking, arms smuggling, illicit acts between borders and organized crime.

⁶⁹ The Anti-Aircraft Defense project for Estructuras Estratégicas, under the coordination of the MD, includes the sub-projects for Modernization of the Escuela de Artillería de Costa Anti-Aérea and the Anti-Air Defense of Estructuras Estratégicas. Distinto del proyecto Anti-aircraft Defense System of the Army, which is intended to provide anti-aircraft defense to military units in the Combat Zone (ZC) in the Theater of Operations (TO).

2. In the political field

- Strengthening the capacity of the country to act autonomously in the field international, with reduction of vulnerabilities to external pressures.
- Greater integration between bodies and government agencies, facilitated by means of coordination and control more efficiencies throughout the territory.
- Increased ability to control and secure river traffic and safeguard of human life, attending to international agreements.
- Environmental preservation and the fight against environmental crimes.

3. In the economic field

- Offer of industrial jobs in cutting-edge technology areas.
- Energy supply from the construction of nuclear power stations of the pressurized water reactor type (pressurized water reactor) of 11 MW, capable of lighting cities with 20 thousand inhabitants.
- Production of radiopharmaceuticals.
- Strengthening of the national industry, with the generation of employees and raising the levels of qualification in all areas of science and technology, specifically those related to shipbuilding and the Fuerza Aérea and automotive industries and in areas such as electronics and technology of the information.

4. In the scientific and technological field

- Ability to design, develop and manufacture systems, materials, components and nuclear and conventional equipment using dual technology.
- Use of information and communication technology resources for activities como salud adista y enseñanza adista.
- Integration of universities and institutes/centers of technology and military research in the development and absorption of sensible technology.
- Training of national industry, through technology transfer.
- Nationalization of systems, equipment and components.
- Development in the construction of ships, aircraft and high-quality armored vehicles, allowing the conception of national projects and the construction in it
Country.

- Creation of a new regional industrial hub, in the future region of the Segunda Es cuadra, with the development of the naval industry, the impulse to civil construction, the implantation of high and medium technology companies and the substantial increase of the sector of business.

5. In the social field

- Expansion of the presence of the State among populations in regions without assistance.
- Greater ability to contribute to the security of urban centers.
- Increased capacity to provide security for major events.
- Contribution to improving the quality of life and increasing safety in municipalities far from the capitals.

Modernization of management

With the aim of perfecting the national defense system, formalizing a sustainable defense policy and integrating the three Forces, the Ministry of Defense is installing a strategic management process, instrumentalized in the Defense Strategic Planning System (SISPED), which will indicate the direction to continue for all the organizations that make up the Ministry and will analyze the Defense from various angles, defining its directions by means of vectors and goals that can be followed.

The SISPED will signal the long-term objectives and the transformation strategies, acting as a guide to help visualize the objectives that will be achieved.

The main purpose of SISPED is the creation of future conditions for obtaining and constantly improving the operational capacities of the Forces, in order to guarantee permanent readiness for the Defense.

Defense Industrial Base (BID)

The Defense Industrial Base (BID) is a group of industries and companies organized in accordance with Brazilian legislation, which participate in one or more of the stages of research, development, production, distribution and maintenance of defense products. A competitive and consolidated defense industry generates qualified employees and encourages technological development with productive links to other sectors of the industry.

The defense production sector has the following specificities: the need for a large production scale and high spending on research and development; long term for project maturation; short material life cycle; and the existence of a market heavily influenced by government purchases and exports, with the presence of highly competitive sectors.

The Industrial Base of Defesa, in isolation, does not have the conditions or capacity to meet the demands for the supply of military products and services. National capacity will only be fully achieved if the entire science, technology and innovation infrastructure is duly established, activated and integrated.

The infrastructure of science, technology and innovation dedicated to the production and availability of military technology that characterizes the BID for the Armed Forces, is much more extensive than the defense industry. Its components must act in a concatenated and integrated way in the activities of teaching and basic research, applied research, development and evaluation, design, manufacturing, services and logistics.

The Industrial Base of Defesa has represented, for three decades, an important economic segment in the country, with a relevant contribution to the commercial balance and the opening of new markets for innovative and good quality products. Until the edition of Provisional Measure No. 544, of 2011, which originated in Law No. 12,598, of March 22, 2012, the Government's policies for the sector did not prove to be compatible with the growth of the Brazilian economy, and neither with the needs of Armed Forces equipment.



President Dilma Rousseff in the launch of the Ley nº 12.598, on March 22, 2012

Law No. 12,598, March 22, 2012

Its purpose is to establish special norms for purchases, contracting of products and defense systems and development of products and defense systems, and provides for incentive rules for the strategic area of defense.

They are included in the purchasing regime dealt with by the provisional measure, in addition to direct administration bodies, special funds, municipalities, public foundations, public and private companies, mixed economy companies, bodies and entities public entities manufacturers of defense products, and other entities directly or indirectly controlled by the Union, by the states, by the Federal District and by the municipalities.

For the purposes of this measure, the following definitions are considered:

I – Defense Product (PRODE) – every good, service, work or information, including armaments, ammunition, means of transport and communication, uniforms and material for individual and collective use used in the purpose of defense activities, with the exception of those for administrative use.

II – Strategic Defense Product (PED) – every PRODE that, due to its technological content, difficulty in obtaining it or being essential, is of strategic interest for the National Defence.

III – Defense System (SD) – interrelated or interactive set of PRODE that serves a specific purpose.

IV – Empresa Estratégica de Defesa (EED) – every legal entity accredited by the Ministry of Defense. The EED will tend to access special tax and financing regimes for programs, projects and actions related, respectively, to National Defense bienes dealt with in item I of the summary of art. 80 and strategic defense products, in the terms of the law.

V – Innovación – introduction of novelty or perfection in the productive environment that results in new PRODE.

VI – Compensation – any practice agreed between the parties, as a condition for the purchase or contracting of goods, services or technology, with the intention of generating benefits of a technological, industrial or commercial nature, as defined by the Ministry of Defense.

VII – Compensation agreement – legal instrument that formalizes the commitment and obligations of the provider to compensate for purchases or contracts made.

VIII – Scientific and Technological Institute (ICT) – body or entity of public administration whose institutional mission is, among others, to carry out basic or applied research activities of a scientific or technological nature.

IX – Brazilian members or shareholders – Brazilian natural persons, born or naturalized, resident in Brazil or abroad, legal persons with private rights and funds or investment clubs, organized in accordance with Brazilian law.

X – Foreign members or shareholders – persons, natural or legal, funds or investment clubs and any other entities not included in item IX.

Trade in defense products is restricted and highly regulated. Several countries have rolled out a technological and industrial policy aimed at their defense industry, and government purchases are grounded on technical and economic grounds, but also on geopolitical interests. This aspect generates restriction and restriction of transfers of various products and technologies by the countries that own them to those that do not have them.

The Brazilian Defense Industrial Base participates with 0.1% of all world exports of conventional weapons, as can be seen in the following table, which presents Brazil in the 27th position among the countries that most export weapons .

Brazil and the ten largest exporters of conventional weapons in 2011

At the	Exporting country	% World Exports*
1	U.S	33.3
two	Russia	26.3
3	Francia	8.1
4	China	4.5
5	Germany	4.0
6	UK	3.6
7	Italy	3.5
8	spain	3.1
9	Sweden	2.3
10	Netherlands	1.8
27	Brazil	0.1

Source: Stockholm International Peace Research Institute (SIPRI).

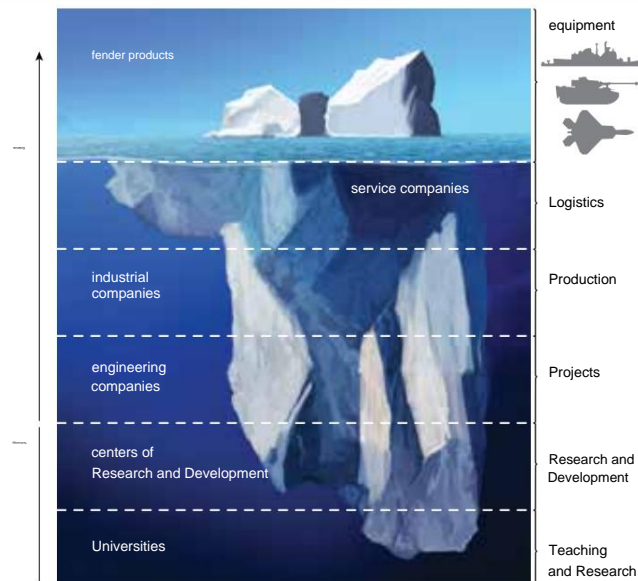
* Based on values from the Indicador de Tendencia de Valores del SIPRI — Trend Indicator Values (TIV). The TIV considers estimates of unit costs of arms production and not the sales values. More information at: www.sipri.org.

Awakening to the domestic market, the BID is able to increasingly meet the demands of the Brazilian Armed Forces, which has maintained imports of this type of product at reduced levels.

The recovery and strengthening of the Defense Industrial Base are goals outlined in the National Defense Strategy. In addition to the purpose of providing artifacts and systems needed by the Armed Forces, it will work as an inductor of innovations technologies with civil applications, considering the dual nature of developments.

The integration of programs and activities between the Ministry of Defense and the Ministry of Science, Technology and Innovation (MCTI) has intensified in recent years, with coordinated actions to promote priority projects that represent important technological innovations and that are drivers of evolution of the Defense Industrial Base.

DEFENSE SCIENTIFIC ICEBERG



Source: Free use image taken from article about Icebergs from Wikipedia.
 Site: <http://en.wikipedia.org/wiki/File:Iceberg.jpg>. Photomontage: Uwe Kils.

 Defense Scientific Iceberg

The articulation of efforts and initiatives in the work of the military and civil research institutes, universities and technological centers result in the strengthening of the entire Defense Industrial Base.

The Armed Forces offer, in terms of science, technology and innovation, valuable contributions to raising the level of technological autonomy in the country. Las Fuerzas maintain centers of excellence whose production, particularly with regard to applied research, is fundamental for the scientific and technological achievements that have taken place in Brazil.

Recently, a political and institutional framework was articulated based on the guidelines of the National Defense Policy, with the aim of developing an industrial base that satisfies national needs, relevant to the scale of the Brazilian economy and its ambitions in the international scenario .

The creation of the SEPROD70 in the Ministry of Defense is included in this table of promotion and incentive to the Industrial Base of Defensa.

The Plan Brasil Mayor which, as of 2011, will continue the Productive Decommissioning Policy (PDP), the National Policy for the Defense Industry (PNID) and the National Defense Strategy, reconciling the needs of industrial development with Defense National.

70 Secretariat of Defense Products — competences and attributions described in chapter 3.

Next, the main objectives of these policies are presented in what refers to the Defensa Industrial Base.

Documents	Main objectives
National Policy of Defense — PND (2012)	<ul style="list-style-type: none"> • encourage state investment in advanced technology sectors. promote the permanent updating and equipment of the Armed Forces with an emphasis on supporting science and technology for the development of the BID. • to develop the BID aimed at obtaining autonomy from indispensable technologies. • guarantee that the industrial sector contributes to ensuring that the attention to the needs of defense products is supported by technology under the national domain. • guarantee the training of the BID, including the domain of dual-use technology, to achieve the supply of defense products. promote the integration of the South American defense industry as an object of measures that provide mutual development, as well as technological training and autonomy.
National Strategy of Defense — END (2012)	<ul style="list-style-type: none"> • strengthen three sectors of strategic importance: space, cyber and nuclear. • train the fender material industry to achieve autonomy in technologies indispensable to the fender.
national policy Defense Industry — PNID (2005)	<ul style="list-style-type: none"> • strengthen the Defensa Industrial Base. • make society more aware of the country's need for a strong Defense Industrial Base. • progressively reduce external dependency with regard to strategic defense products, with development and internal production. • expand the acquisition capacity of strategic defense products for national industry by the Armed Forces. • improve the technological quality of the strategic products of defense. • increase the competitiveness of the Defense Industrial Base brazilian to expand exports. • improve the industrial mobility capacity in the Industrial Base of Defense.
policy of development Productive — PDP (2008) Plan Brasil Mayor (2011)	<ul style="list-style-type: none"> • desgravar las inversiones y exportaciones. • expand and simplify financing for investment and exports tions. • increase resources for innovation. • perfecting the regulatory framework for innovation. • stimulate the growth of small and micro-businesses. • strengthen the trade defense. • create special regimes for adding value and technology logía en las productive chains. • regulate the government procurement law to encourage it production and innovation in the country.

Source: Federal Government.

Currently, an expressive part of the companies that make up the IDB is a remnant of the great military projects undertaken in the 1970s and 1980s, or formed by companies that admitted the projects started in that period. It is observed, now, the entrance of large companies in the defense sector, through the merger with smaller companies and that, traditionally, form part of the Industrial Base of Defense. The most important segments are:

Segments	Products
Light weapons, ammunition and explosives	Pistols, revolvers, rifles, carbines, machine guns, mortars, ammunition of different calibers and industrial and military explosives.
non-lethal weapons	Non-lethal ammunition and launchers, non-lethal grenades, spacers, rockets and flares.
Heavy weapons and ammunition	Mortars, ammunition for mortars, cannons and howitzers, rockets and missiles.
Electronic systems and command and control systems	Radars and sensors, communication and data transmission equipment, human/machine interface terminals and integrated communication, command, control and C3I intelligence systems.
military naval platform	Patrol boats, corvettes, submarines and various military vessels.
military ground platform	Military utility vehicles and armored vehicle (average) on wheels for transporting personnel.
military aerospace platform	Military aircraft, UAVs, missiles, satellites, satellite launch vehicles and sounding rockets.
nuclear propulsion	Fuel cycle project and nucleoelectric generation project.

Source: Ministry of Defense.

The prospect of expanding demand for strategic defense products offers an excellent opportunity for the development and strengthening of the IDB. There are, however, challenges highlighted in the Plan Brasil Mayor and in the National Defense Strategy to accompany the expansion of demand and competitively consolidate the national defense industry:

- Increase investment in research, development and innovation. •
- Expand participation in domestic and foreign markets. •
- Strengthen the supply chain in Brazil.

Science, technology and innovation

Sharing or narrowing down scientific and technological knowledge is a political decision that directly interferes in commercial negotiations between countries, including negotiations on defense products.

In order to meet the guidelines contained in the National Defense Strategy, the Ministry of Defense, in tune with other ministries and with representatives of the business and academic sectors, developed actions in order to integrate the existing science and technology systems in Brazil.

A sensible economy of means and efforts can be achieved if greater integration of the research organizations and development of the Armed Forces takes place, not only in the execution of integrated projects or of common interest, but also in the exploitation of new opportunities in the area of science and technology.

A greater participation of the civilian scientific community in military projects, including the possibility of transferring presumed Defense resources to civil science and technology infrastructure, can also rationalize the conduct of projects of interest to Defense.

The interaction between civil and military research institutions, universities and companies is fundamental to integrate the entrepreneurial efforts in the creation of high technology centers in various areas. In Brazil, the technological poles are directly related to planning processes that encompass the government, universities and companies, with special emphasis on the incentives of the State for technological development. The Technological Pole of Sao José dos Campos, in the space area, can be considered an example of synergy in the scientific and technological sector.

CHAPTER 6



Representation of the republic on monetary banknote

DEFENSE ECONOMY

“There is no economic and social development and sovereign foreign policy without an affirmative defense policy.”

President Dilma Rousseff
Brasilia, April 5, 2011

A fairer Brazil, with greater exclusion rates and greater social inequalities, economically and socially strengthened, achieves emphasis on the world stage, which implies greater security and defense responsibilities in the global strategic environment.

The National Defense is of interest to the collective and is related to the main objectives of national development. As explained at length in previous chapters, Brazil needs an effective defense system to protect its vast territory, its inmenable riches and its large population.

The good functioning of the Defense sector, in turn, requires an adequate allocation of presupposed resources, as well as efficient management. This chapter will present assumed states and explain the main peculiarities of the Brazilian assumption applied to the Defense sector. It is observed that the historical data presented are always expressed in real terms, it is decided, considering the inflation in the period.

Defense Presumption

general rules

The Complementary Ley no 97/1999, amended by the Complementary Leyes no 117/2004⁻ and in 136/2010, establishes four general rules for the assumption of Defense:

- Presupuesto del Ministry de Defensa will contemplate the priorities defined in the Ministry of Defense National Defense Strategy.
- Presupuesto del Ministerio de Defensa will identify the specific allocations of the Arma da, del Ejército and de la Fuerza Aérea.
- This proposed assumption of Forces will be drawn up jointly with the Ministry of Defense, which will consolidate it.
- Navy, Army and Air Force will carry out the management, on an individual basis, of the presumed resources that are allocated under the assumption of the Ministry of Defence.

The Brazilian norms institute the principles of unity and universality presupposes taria. The principle of unity establishes that the assumption must be one, that is to say, each government entity must prepare a single assumption. In this way, the assumption of Defense makes part of the General Assumption of the Union. The principle of universality determines that the presupposed law of each federated entity must contain all income and expenses of all powers, organisms, entities, funds and foundations instituted and maintained by the State.

The presumptive process

The presumptive process of Defesa, as part of the presumptive process of the Union, is carried out in three major stages. At first, the Executive Power draws up a law project that establishes a Pluriannual Plan of four years, in which all programs related to Defense are inserted. There are also detailed objectives, targets, initiatives and indicators for each of these programs. It is up to the President of the Republic to send the draft law of the Pluriannual Plan to the National Congress, which, in turn, reviews the document, approving it and sending it for presidential sanction. The current Pluriannual Plan, called "Plan Más Brasil", covers the years from 2012 to 2015.

In a second stage, the President of the Republic of the National Congress continues, all years, a draft law of presupposed directives, which guides the elaboration and execution of the annual presupposing law. It is also up to the National Congress to assess and approve this bill and send it for presidential sanction.

As a last step, the Ministry of Defense and other organizations of the Union detail the actions of their respective programs in an annual bill.

These actions can be of three types, according to the official presupposed classification:

- Projects: actions that have a deadline.
- Activities: actions that have no deadline for completion.
- Special operations: actions that do not generate products, such as payment of gods.

In this way, the proposed law would estimate annual income and authorize expenditures in detail and in accordance with the law of presupposed guidelines and the Pluriannual Plan. It is the responsibility of the Presidency of the Republic, also, to send to the National Congress, for alteration and approval, the bill of law presumed to be annual, which, later, will return for presidential sanction.

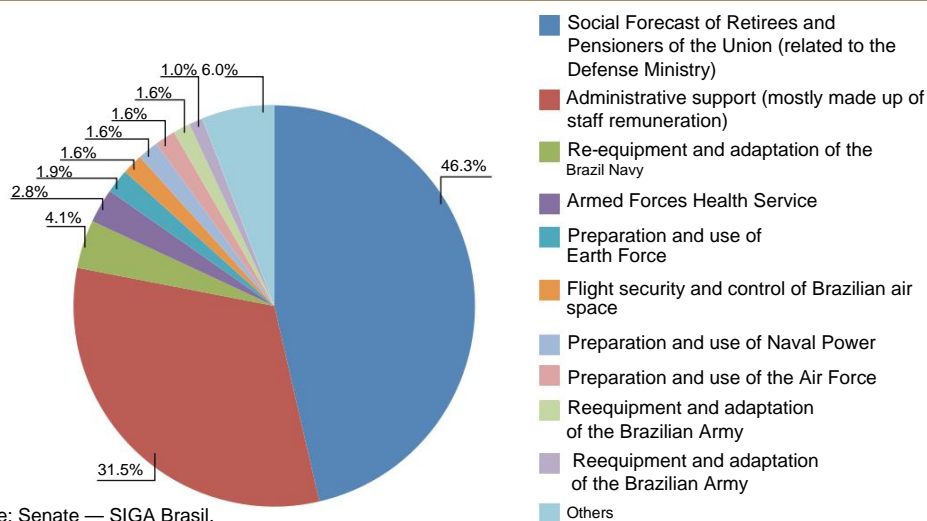
Principles for the Defense Presumption

An efficient National Defense system requires large and long-term investments, such as those applied to submarines, armored vehicles and aircraft. These equipment have a certain time of useful life, considering natural degradation and technological advances. As such, they need to be renewed periodically and, preferably, at pre-programmed intervals. Consequently, the allocation of resources to the Defense sector should ideally observe the following three detailed principles:

- **Stability** - the resources allocated to the Defense should not, in principle, suffer sudden oscillations. This practice contributes to keeping the Defense projects maintained over time, avoiding delays or possible losses of human resources, which are trained, many times, over the course of the development of the projects.
- **Regularity** - the disbursement of the resources must occur in a systematic way, making it possible for the schedules to be fulfilled in the way they were planned.
- **Predictability** - this principle provides long-term planning security for large projects, ensuring that, in the future, resources are disbursed in a stable and regular manner.

Defense presumptive programs

The following chart illustrates the main programs of the Ministry of Defense in 2011 as proportions of the Ministry's total expenditure.



Source: Senate — SIGA Brasil.

Presumptive Programs of the Ministry of Defense in 2011

The graph shows that the largest percentage of the resources allocated to Defense are destined to pay for the forecast of retirees and pensioners (46.3%) and administrative support (31.5%), which includes, among other expenses, the active staff payment. In contrast, in 2011, the total expenditure on investment and cost on the equipment and training of Fuerzas was 10.8%⁷¹.

Defense spending status international scope

The comparison between the data of the Defense assumptions of different countries is useful to obtain a general view of the order of magnitude and how financial resources are applied. It must be considered, however, that there is no uniformity of the presupposed classifications. A country can include a certain type of expenditure under its assumption (such as, for example, technological development), while other things cannot be done. Brazil, in particular, includes expenses with the forecast of retirees and pensioners in its defense assumption. The exclusion of these expenses would represent a reduction of 46% in the budget for 2011 of the Ministry of Defense and similar values for previous years.

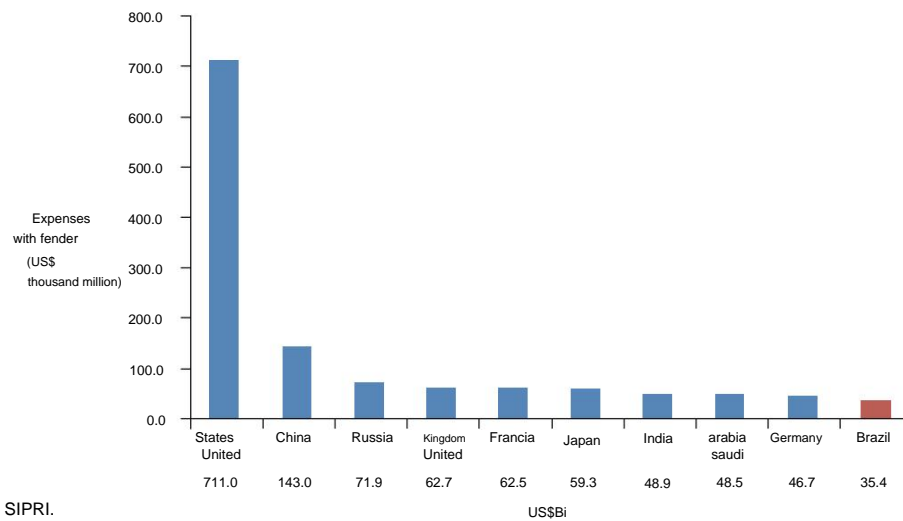
In the comparisons presented below, the information on defense expenditures was based on data released by the Stockholm International Peace Research Institute, Sweden (Stockholm International Peace Research Institute - SIPRI) and has the purpose of showing the level that Brazil occupies in comparison with other countries.

In a classification of the ten countries with the highest expenditures on defense in the world, in 2011, Brazil is in the tenth place. The observation already carried out in relation to the expenses with personnel and respective loads must be considered, which can significantly distort the real position of the Country. It is also observed that Brazil is the one with the lowest expenditure on defense among the countries of the BRICS group, with the exception of Southern Africa, whose expenditure was not enough for the country to be included in the classification⁷².

In this assessment, Brazil was the sixth nation that most increased its defense spending in the last decade. However, it is perceived, again, that this is a lower growth than the other countries of the BRICS group. Comparing, in this period, the growth of defense spending in Brazil (19%) and China (170%), for example, the discrepancy is very large.

⁷¹ Obtained by means of the sum of the percentage of equipment and adequacy of the Armada and Air Force and of the preparation and use of the three Fuerzas.

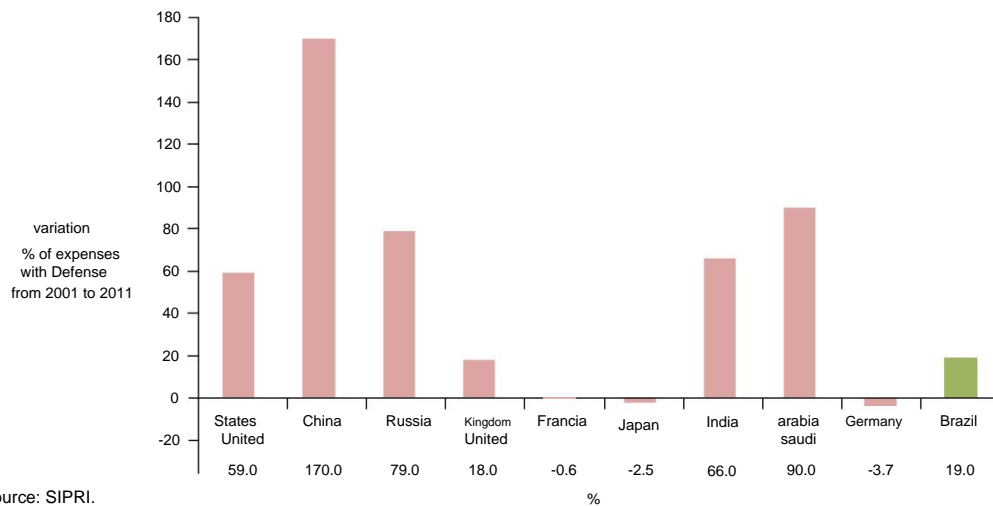
⁷² The presumed values of Saudi Arabia include expenditures on public security and, therefore, may be overestimated.



Source: SIPRI.

US\$bi

Ten countries with the highest spending on Defense in the world in 2011



Source: SIPRI.

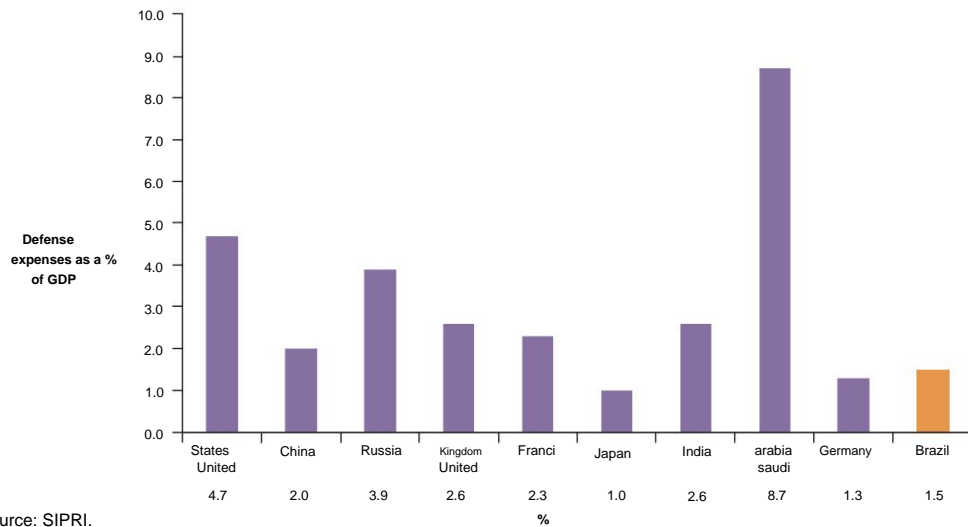
%

Variation in expenses with Defense from 2001 to 2011

Also, considering the ten countries that spent the most on Defense in the same period, Brazil is the eighth nation with the highest proportion of expenditures in relation to the Gross Domestic Product (GDP)⁷³.

⁷³ PIB represents the sum (in monetary values) of all the final goods and services produced by a country.

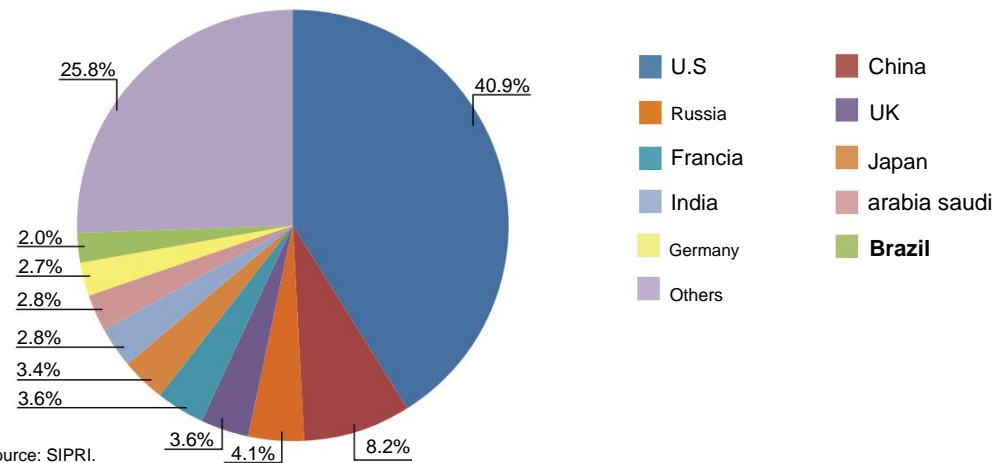
Likewise, it is perceived that the expenditure index, comparatively, is inferior to the other countries that are part of the BRICS group, without considering the data from Southern Africa.



Source: SIPRI.

Comparison of expenses with defense and % of GDP

It is also important to highlight that expenditures in Brazil with Defense corresponded to 2.0% of the expenditure in this sector worldwide in 2011, as can be seen in the graph below. It is evident that almost half of the overall spending on Defense corresponds to the spending of the United States of America and that the spending of the BRICS group, not including Southern Africa, corresponds to 17.1% of the overall spending in the sector.

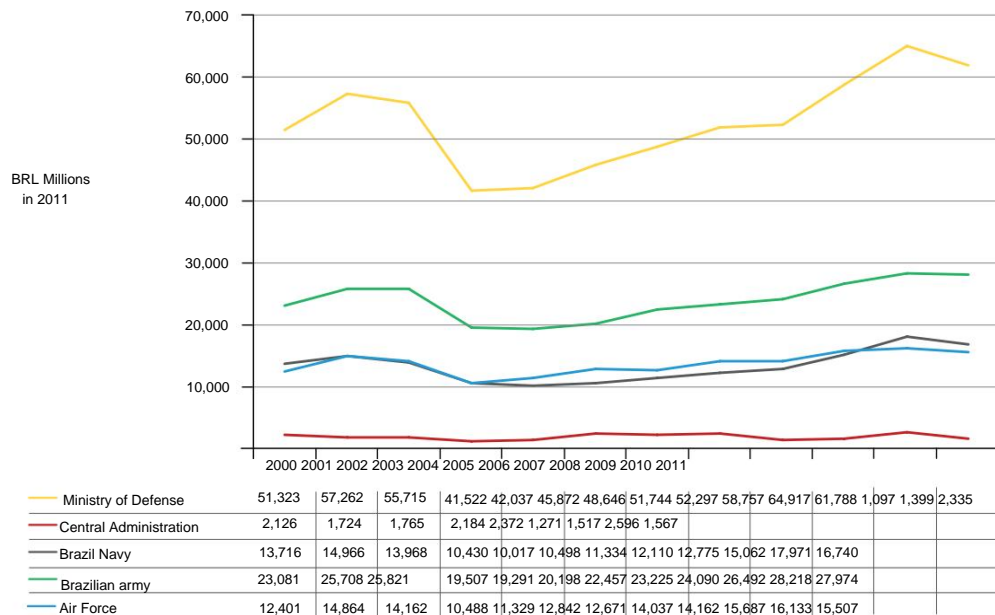


Source: SIPRI.

Proportion of expenses with Defense of the World (%)

national scope

The presumed execution of the Ministry of Defense helped a progressive reduction in expenses that reached their lowest value in 2003. From then on, there was a gradual process of recovery up to 2010, as can be seen in the graph below. In 2011, there was a small drop, due to the fiscal containment measures imposed by the macroeconomic situation. The variations presented in the execution process would presumably be between the Armed Forces and the Central Administration⁷⁴ reflect their respective differences and peculiarities, particularly in relation to the number of personnel, as described in chapter 3.



Source: SIAFI.

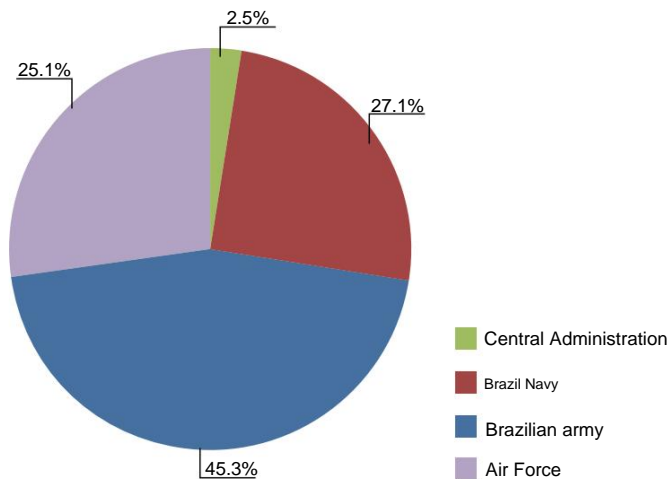
Expenses of the Ministry of Defense

The Ley Annual Presupuestaria (LOA) foresees, for the fiscal year 2012, in its Volumen IV, a allocation of BRL 64,794,765,301 to the Ministry of Defensa⁷⁵.

⁷⁴ The expression "Central Administration" includes the structure described in chapter 3 added by: Escuela Superior de Guerra (ESG), Hospital de Fuerzas Armadas (HFA) and Secretariat of Civil Aviation (SAC), which, on 3/2011, was transferred to the Presidency of the Republic.

⁷⁵ LA LOA of 2012 is available at www.planificaci3n.gov.br.

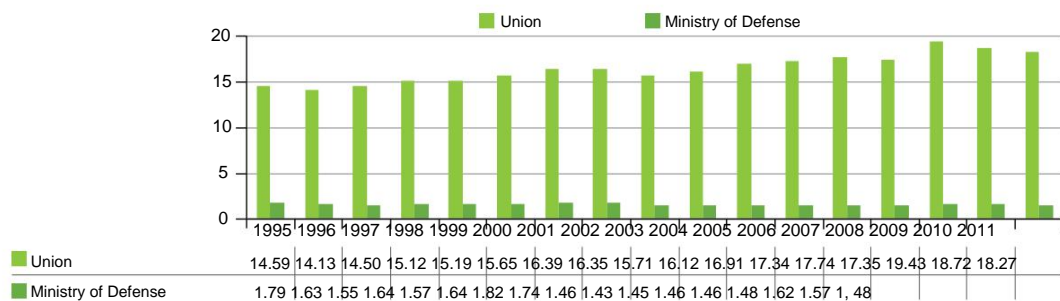
The proportions of expenses, in the assumed liquidation of the Union, of the three Fuerzas and of the Central Administration of the Ministry of Defense, in the year 2011, are presented in the graph below.



Source: SIAFI.

Expenses of the Ministry of Defense in 2011

It is important to emphasize that the recovery in the execution assumed by the Ministry of Defense previously presented is less accentuated when considering the expense with Defense as a proportion of the GDP. This is due to the fact that the expenditure on Defense did not accompany the level of primary expenditure⁷⁶ of the Union in relation to GDP, which rose from 14.59% in 1995 to 18.27% in 2011. In the same period, participation of defense expenses in GDP increased from 1.79% to 1.48%.



Sources: SIAFI and Central Bank.

Primary Expenditure of the Union and the Ministry of Defense - Participation in the Gross Domestic Product

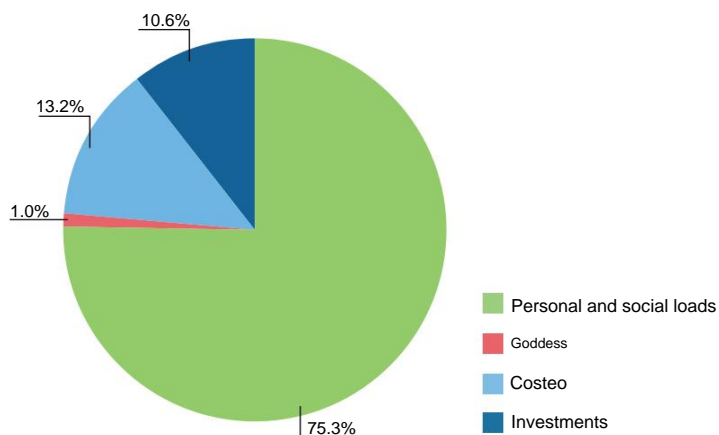
⁷⁶ Primary expenses, also known as non-financial expenses, correspond to the set of expenses that enable the offer of public services to society, deducted from financial expenses. Son ejemplos, los spending con personal, costo e inversion. Such expenses may be obligatory or discretionary in nature.

The following types of expenses are included in the set of allocations for the Defense:

- Personal and social loads – intended for the payment of active personnel, retirees and pensioners, including social charges and social forecast on these payments.
- Costs – directed towards current National Defense expenditures, which include maintenance of media, food, uniforms, fuels, lubricants, ammunition for light weapons, transport, training and other administrative expenses.
- Inversion – directed towards the acquisition and modernization of material and equipment for Defense, which includes planes, helicopters, ships, tanks, heavy weapons, large installations, light weapons, among others.
- Payment of deeds.

Of these different types of expenses, expenses with personnel and loads represent the largest percentage.

The investment costs are much lower than those required to support the priority projects for the National Defence. As discussed in Chapter 5, in order to carry out the Defensa transformation within the indicated directions, there is a need to increase investment costs. Expenses with cost should also increase, due to the greater maintenance demands with the acquisition of new equipment. In the state of the expenses with personnel, presented in the table below, it is observed that the Army is the one that requires the greatest allocation of resources, for having the most effective resources, as presented in chapters 3 and 5. On the other hand, Armada y Fuerza

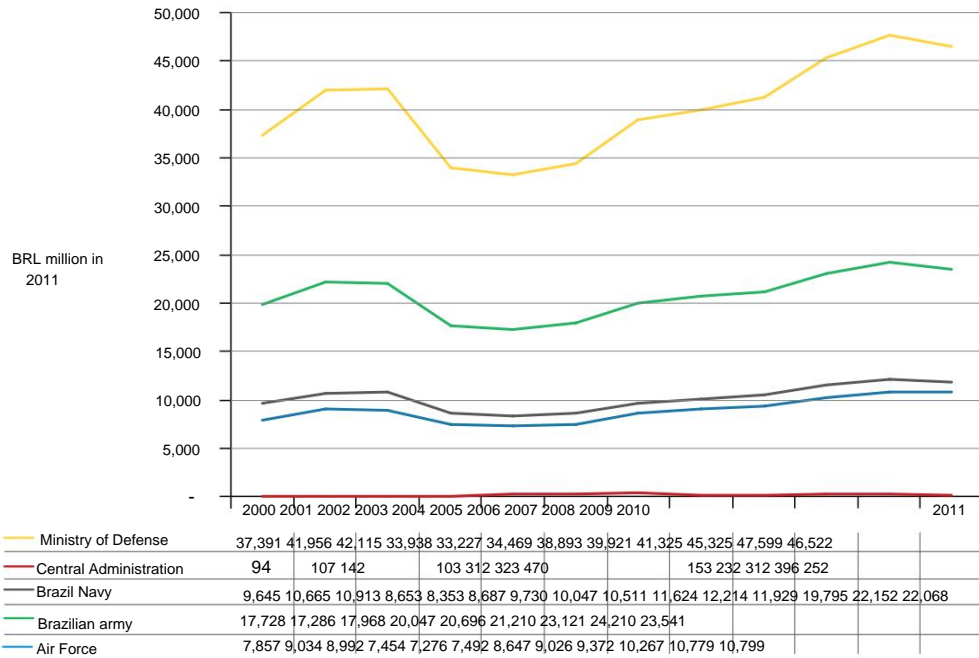


Source: SIAFI.

Expenses of the Ministry of Defense in 2011*

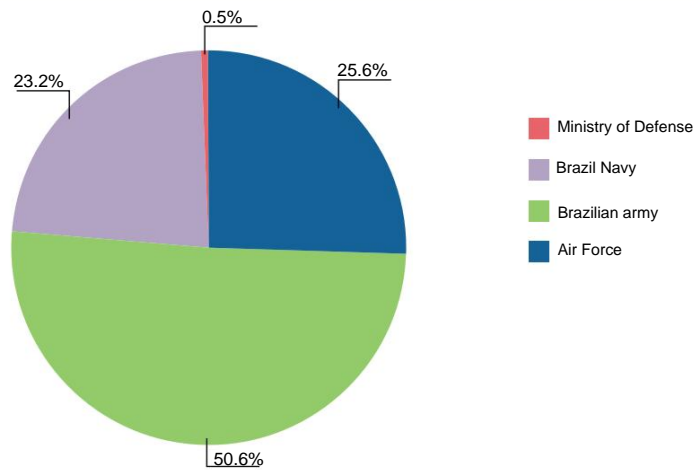
* The 2012 LOA provides the Ministry of Defense with R\$9,147,077,183 for investment-type expenditures. This represents an increase of BRL 2,363,708,524, when compared to the 2011 LOA budget allocation.

Airline, in the last decade, maintained similar expenses, as there were equivalent staff numbers. With the requirements of the National Defense Strategy, there is a future tendency to occur a relevant increase in these expenses for the Naval Force, as a result of the creation of the Second Esquadra in the north of the Country.



Source: SIAFI.

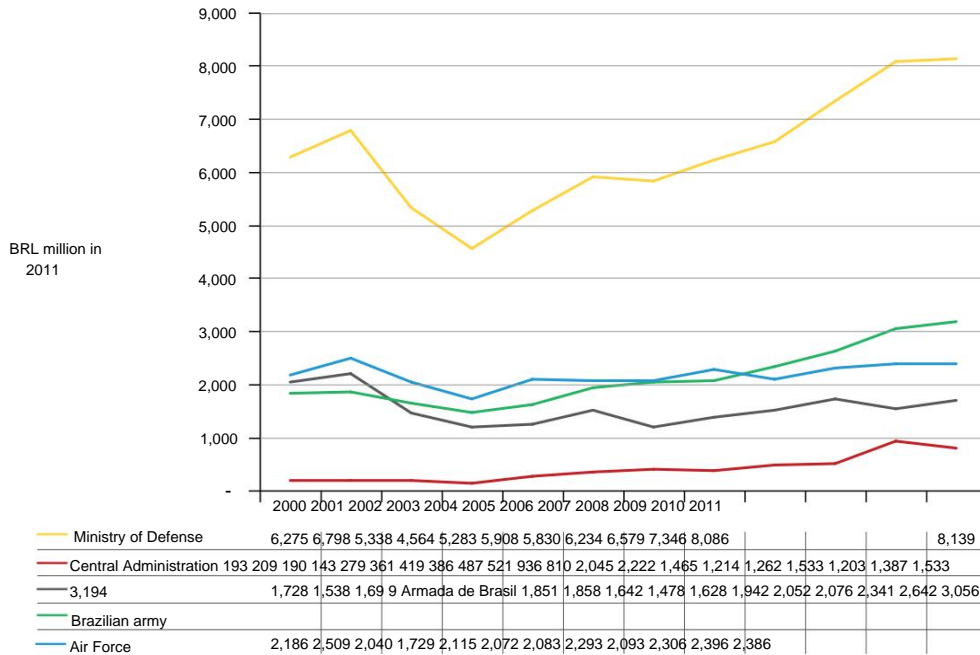
Expenses of the Ministry of Defense with Personal and Social Loads



Source: SIAFI.

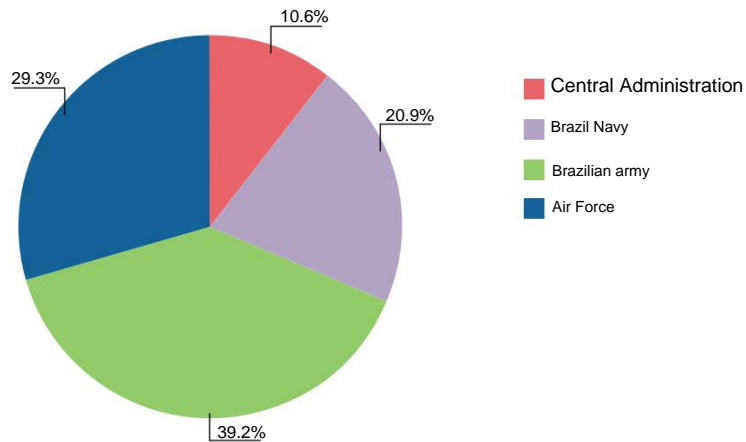
Expenses of the Ministry of Defense in 2011 with Personnel and Cargo

Expenses with the cost of the Ministry of Defence, since 2003, have seen a gradual increase, leading to an increase in investment expenses. In the last decade, hubo alternancia entre las tres Fuerzas, con relación a que tiene mayor expend. In the same period, the Central Administration remained at a lower level, having experienced a more significant rise in 2010.



Source: SIAFI.

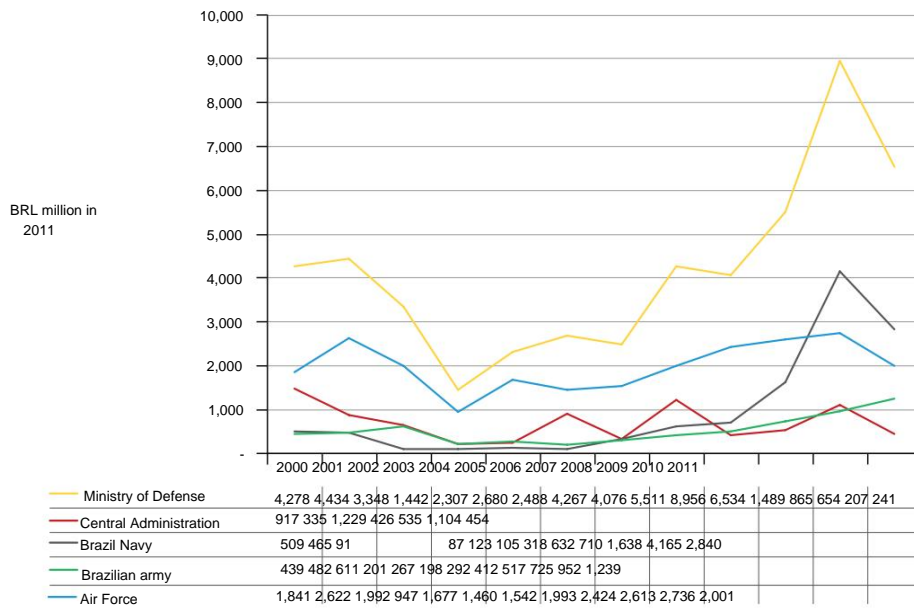
Expenses of the Ministry of Defense with Cost



Source: SIAFI.

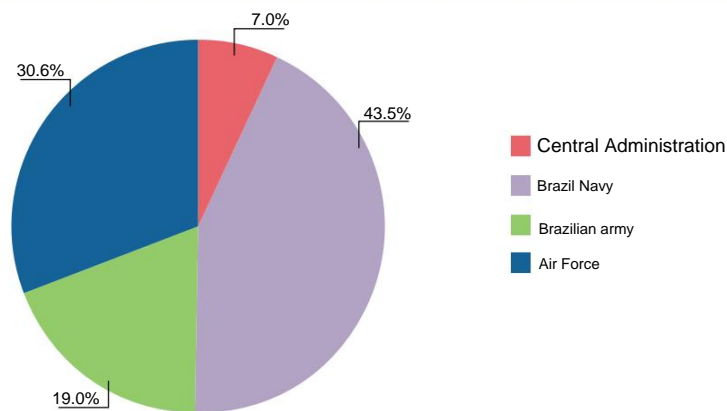
Expenses of the Ministry of Defense in 2011 with Cost

Expenses with inversion present different situations between the Fuerzas. The cost of the Navy has increased significantly since 2008, especially for what was destined for the submarine program, which includes nuclear propulsion. The inversion of the Army requires special attention, because, despite the increase in recent years, its level is still very low. The inversions of the Air Force have suffered a slight increase in the last five years, even though there was a reduction in 2011.



Source: SIAFI.

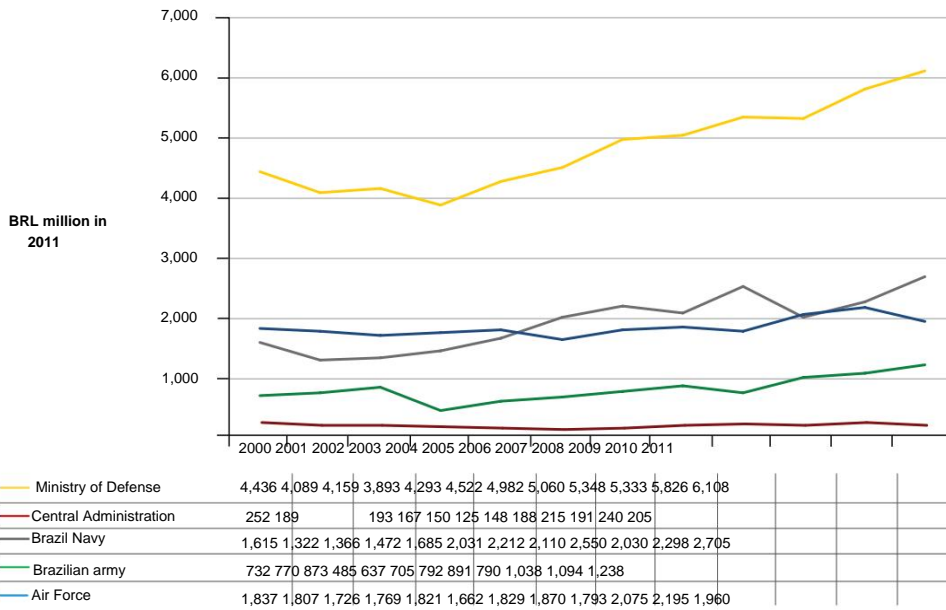
Expenses of the Ministry of Defense with Inversion



Source: SIAFI.

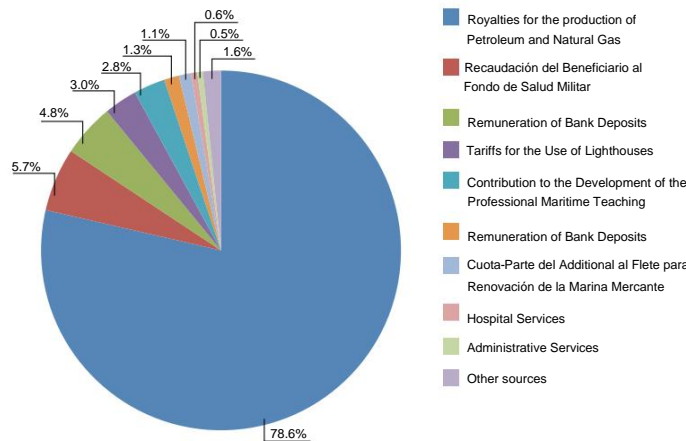
Expenses of the Ministry of Defense in 2011 with Inversion

The resources destined to the Defense come exclusively from the assumption of the Union. Despite the fact that the Armed Forces collect income from various sources, all are fully collected by the National Treasury.



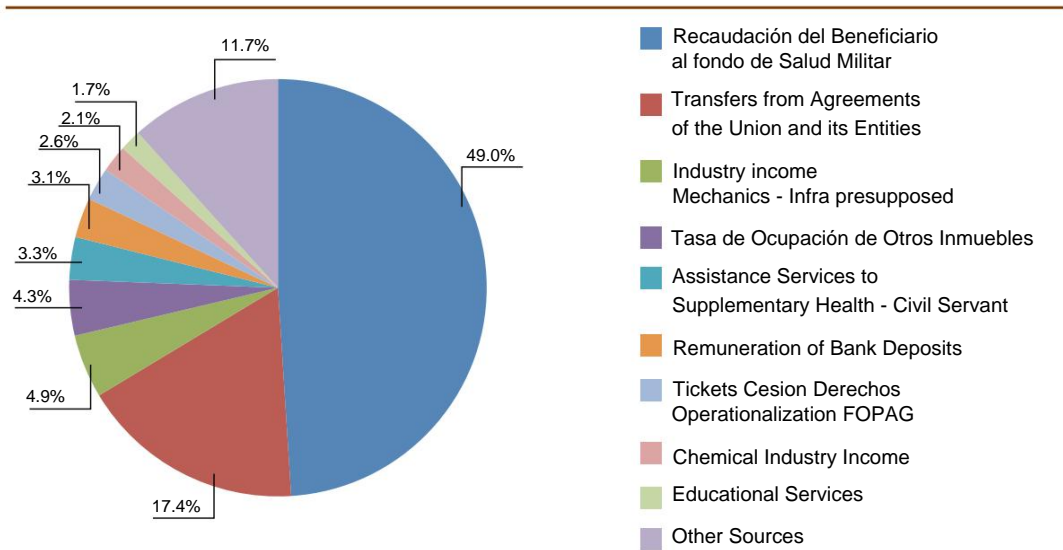
Source: SIAFI.

Recaudación de Ingresos del Ministry de Defensa



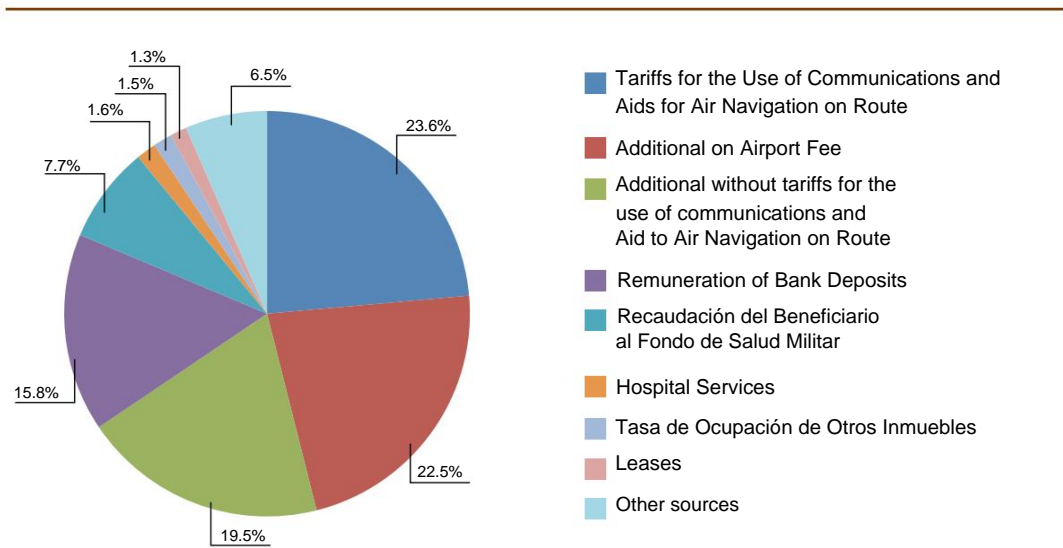
Source: SIAFI.

Sources of Navy Income in 2011



Source: SIAFI.

Army Income Sources in 2011



Source: SIAFI.

Fuerza Aérea Income Sources in 2011

The Union has, as previously mentioned, a Pluriannual Plan for the assumption. It is a medium-term Plan⁷⁷, of just four years, which is subject to several annual changes, including contingencies, mainly due to external crises.

Even though the Defense assumption has been discreetly recovered over the last seven years, it is considered that there is still much to be done.

Spending on the defense of Brazil has not been proportionally accompanied by the economic growth experienced by the country. It is essential that society realizes that spending on Defense must be seen as an indispensable investment in socio-economic development, in the protection of natural resources and in the guarantee of national sovereignty.

The risks of not being ready for the Defesa may involve greater costs. Despite having a peaceful tradition, Brazil cannot be seen as a defenseless and unarmed Nation. The National Defense represents the “insurance” that the Brazilian State must permanently renew, with stability, regularity and predictability, in order to guarantee a favorable environment for full economic and social development.

⁷⁷ Medio term por la perspectiva presupuestaria. From the Defense perspective, the multiannual Plan is considered a short-term document.

ANNEXES

Annex I

Personal

Number of Military in 2012

Classification	Existing
Military of the Navy	65,528
Officers of the Navy	8,669
Sub-officials of the Navy	56,859
Cables	14,140
mariners	17,205
Military of the Army	204,744
Officers of the Army	23,445
NCOs of the Army	181,299
Cables	25,832
Soldiers	109,883
Military of the Air Force	69,093
Officers of the Air Force	9,708
Petty Officers of the Air Force	59,385
Cables	3,945
Soldiers	30,231
Total	339,365

Observations:

Cantidad does not consider special non-commissioned officers (Alférez).

Cantidad para sub-officials include all sub-officials (soldiers, corporals, sergeants and sub-lieutenants), considering that corporals and soldiers are marked below.

Number of Military in 2012 by Location

location	Existing	% of Total	No. of Inhabitants / Military
Armada			
1st Naval District (1st DN)	46,110	73.97%	848
2nd Naval District (2nd DN)	2,613	3.33%	6,157
3rd Naval District (3rd DN)	3,195	3.47%	8,545
4th Naval District (4th DN)	2,789	4.05%	6,434
5th Naval District (5th DN)	2,596	3.23%	10,549
6th Naval District (6th DN)	1838	2.66%	2,983
7th Naval District (7th DN)	2,751	4.37%	3,617
8th Naval District (8th DN)	1,168	1.50%	35,319
9th Naval District (9th DN)	2,468	3.76%	2,522
army			
Military Command of the Amazon (CMA)	27,015	12.40%	536
Del Este Military Command (CML)	46,935	23.64%	833
Northeast Military Command (CMNE)	25,325	11.81%	2,096
Western Military Command (CMO)	14,071	6.70%	390
Altiplano Military Command (CMP)	22,789	11.01%	437
Southern Military Command (CMS)	51,407	25.39%	533
Southern Military Command (CMSE)	17,201	9.05%	2,398
Air Force			
I Regional Air Command (I COMAR)	4,107	5.88%	3,353
II Regional Air Command (II COMAR)	8,721	13.16%	5,208
III Regional Air Command (III COMAR)	22,496	32.27%	1,691
IV Regional Air Command (IV COMAR)	12,251	17.47%	3,436
V Regional Air Command (V COMAR)	6,767	10.02%	3,951
VI Regional Air Command (VI COMAR)	9,094	12.92%	1,342
VII Regional Air Command (VII COMAR)	5,657	8.28%	1,014

Source: IBGE, population count in 2010, published in the Official Gazette of the Union on 11/04/2010. Note: Special Petty Officers (Alférez) are not computed.

Number of Military in 2012 in Misiones de Paz

Country	function	quantity
Ivory Coast	Military Observer	1
	Asesor	3
	Liaison Officer	3
Cyprus	Asesor	
Haiti	Asesor	1 20
	Troop	2,076
	Police officer	3
Liberia	Asesor	2
	Military Observer	two
Western Sahara	Observer	10
sudan	Observer	3
	Police officer	7
	fireman	two
	Asesor	two
East Timor	Observer	3
	Police officer	16
Lebanon	Asesor	15
	Frigate Union	252
Syria	Observer	11
Guinea Bissau	Police officer	1
Peru and Ecuador	Monitor	4
Colombia	Monitor	7
Total General		2,444

Number of Military Aggregates Abroad in 2012

Military	Existing
aggregates	64
Adjunct Aggregates	9
Auxiliary Aggregates	63
Subtotal	136
Representatives in International Organizations and their assistants	39
Total	175

Number of Civil Servants in the Ministry of Defense in 2012

Careers/Plans	army army		strength aerial	ESG HFA	Administration Central	Total
Plan General of Functions of Power	3,220	5,189	2,691	30 260	122	11,512
Executive (PGPE) career plan	411	405	1971	-	-	2,787
Science and Technology Technology Career Military	2,769	914	597	-	-	4,280
Teaching career in Technical and Technological Teaching	111	688	275	-	-	1,074
teaching career Higher	119	70	227	-	-	416
Master's Career Plan						
Basic teaching Federal (1st and 2nd Cycles)	27	46	129	-	-	202
Air Defense and Traffic Control Group Air	-	-	371	-	-	371
career plan and Positions of the Hospital of the Armed Forces	-	-	-	- 1,479	-	1,479
Public Use - CLT + CLT (Decree En el 6.657/2008)	-	-	30	-	208	240
Maritime Court (Judges)	7	-	-	-	-	7
Total	6,666	7,312	6,291	30 1947	122	22,368

Observation: the table does not include commissioned positions and civil servants of careers with lesser staff.

Defense Equipment

Medios Navales de la Escuadra de la Armada in 2012

Type	class	At the
carrier	São Paulo	1
Frigate	Niterói	6
Frigate	greenhalgh	3
truss	Inhaúma	4
truss	barroso	1
Diesel and electric propulsion submarine	tupi	4*
Diesel and electric propulsion submarine	Tikuna	1
submarine rescue boat	Felinto Perry	1
Combat tank landing ship	Garcia D'Avila	1
Combat tank landing ship	Admiral Saboia	1
disembarkation boat darsena	Ceará	1
tank ship	Admiral Gastao Motta	1
tank ship	marajó	1
School buque	Brazil	1
sailing ship	White Swan	1

* Prognosis of the production of four diesel-electric submarines in 2016 and propulsion of a nuclear-powered submarine for the year 2022.

Means Aeronavales de la Escuadra de la Armada in 2012

Type	designation	At the
attack aircraft	AF-1/AF-1A Skyhawk	23
anti-submarine helicopter	SH-3A/B Sea King	5
Helicopter of clarification and attack	AH-11A Super Lynx	12
instruction helicopter	IH-6B - Bell Jet Ranger	16
General purpose helicopter	UH-14 Super Puma	6
General purpose helicopter	UH-15 Super Cougar	1*
General purpose helicopter	UH-12/13 Squirrel	15
Multipurpose helicopter	MH-16 - Sea Hawk	4*

* Received one aircraft from a total of 16 acquired.

* Four aircraft in reception phase.

Medios Navales Distritales de la Armada in 2012

Type	class	At the
truss	Imperial Mariner	two
Ocean patrol boat	amazon	1
patrol boat	Grajaú	12
patrol boat	macaé	two
patrol boat	Piratini	6
patrol boat	Bracuí	4
River Patrol Buque	Pedro Teixeira	two
River Patrol Buque	roraima	3
Monitor	Parnaíba	1
River transport notice	Piraim	1
Buque river transport	paraguassu	1
River logistical support vessel	Potengi	1
Deep sea tugboat	Triumph	3
Deep sea tugboat	Admiral William	two
sweeping bucket	Aratu	6
auxiliary ship	For	1
Hospital assistance boat	Oswaldo Cruz	two
Hospital assistance boat	Doctor Montenegro	1
Hospital assistance boat	Lieutenant Maximiano	1
Hospital assistance boat	Soares de Meirelles	1
Hydro oceanographic vessel	Amorim del Valle	1
buoy buque	Farolero Mario Seixas	1
buoy buque	Commander Varella	4
investigation notice	Alférez Moura	1
instruction notice	Alfred Nascimento	3

Means Aeronavales Districts of the Navy in 2012

Type	designation	At the
general purpose helicopter	UH-12/13 Squirrel	11

Medios del Cuerpo de Infantes de Marina de la Armada in 2012

Type	Designation	At the
Armored vehicle over Orugas	SK-105 Kuerassier	18
Armored vehicle over Orugas	M-113	30
Amphibious Armored Vehicle on Orugas	AAV-7A1 / LVTP-7	26
Armored Vehicle on Wheels	Piranha IIIC	18
Antiaircraft Artillery	L/70 BOFORS 40mm	6
artillery	L-118 Light Gun (Towed 105mm)	18
artillery	M-114 (155mm towed)	6
artillery	K6A3 (120mm Mortar)	6
infantry	Mortar M-60 BRANDT (60mm)	103
infantry	Mortar 81mm	26
light armament	RBS-56 Bill (Anti-tank Missile)	18
light armament	MISTRAL Anti-aircraft Missile	8

Naval Hydro Oceanographic and Balizamiento de la Navy in 2012

Type	designation	At the
polar ship	Admiral Maximiano	1
oceanographic ship	Antares	1
Oceanographic Support Ship	Ary Rongel	1
Lighthouse Hydro Oceanographic Buque	Admiral Graça Aranha	1
Hydrographic Buque	Sirius	1
Hydro Oceanographic Buque	Amorim del Valle	1
Hydro Oceanographic Buque	Cruz del Sur	1

Averages of the Army in 2012

Type	designation	At the
Armored Vehicle	Leopard1A1	128
Armored Vehicle	Leopard1A5	250

Type	designation	At the
Armored Vehicle	M60 Patton A3 TTS	91
Armored Vehicle	M-41B/C	112
Armored Vehicle	EE-9 Cascavel	409
Armored Vehicle	EE-11 Urutu	213
Armored Vehicle	M113BR	584
Armored Vehicle	VBTP-MR Guaraní	4*
artillery material	M108 105mm	72
artillery material	M109 155mm	40
artillery material	M114 155mm	92
artillery material	L118 105mm	36
artillery material	M101 105mm	320
artillery material	Stars II	20
artillery material	Oerlikon 35mm	38
artillery material	Bofors 40mm L/70	24
Combat support	mortar 120 mm	60
Helicopter	Eurocopter Cougar	8
Helicopter	fennec/squirrel	32
Helicopter	black hawk	4
Helicopter	Eurocopter Panther	32
Helicopter	Caracal / EC-725	1*

* Prediction of acquisition of more than 2,040 vehicles.

* Received one aircraft out of a total of 16 acquired.

Midfielders of the Air Force in 2012

interceptor fighter aircraft	Designation	At the
Avión de Caza Interceptor	F-2000 B/C Mirage 2000	12
Avión de Caza de Misión Múltiple	F-5 EM / FM Tiger II	57
Air-Surface Attack Airplane / Reconnaissance	TO 1	53
Flight Test Airplane	AT-26 Xavante	two
Avión de Entrenamiento Avanzado / light attack	A-29 Super Tucano	95
Entrenamiento plane	T-27 Toucan	101
Transport Airplane / Refueling at Flight	KC-137 / Boeing 707	4
Avión de Transporte / Refueling in Flight / Search and Rescue	KC-130 Hercules	two
Transport Airplane / Search and Rescue	C-130 Hercules	20

interceptor fighter aircraft	Designation	At the
Transport Airplane / Search and Rescue	C-105 A Amazon	12
transport plane	C-99 / Embraer 145	8
transport plane	C-97 Brasilia	20
transport plane	C-98/A Caravan	29
VIP Transport Airplane	VC-99 B/C Legacy/ E-135	8
Presidential Airplane	VC-1 / Airbus A-320	1
Presidential Airplane	VC-2 / Embraer 190	two
Transport Airplane / Reconnaissance	VU/R-35/ Learjet 35	7
Airplane Transport / Reconnaissance / Maritime Patrol / Search and Rescue	C-95 Bandeirante	86
Air Patrol Maritime	P-3 AM	5*
Avión de Control y Alarme en Vuelo / recognition	E/R 99 / Embraer 145	8
Flying Inspection Aircraft	IU-93A	4
attack helicopter	AH-2 Saber	6*
flight test helicopter	H-55 Squirrel twin-engine	4
instruction helicopter	H-50 Squirrel	24
Transport / Search and Rescue Helicopter	H-60 Black Hawk	10
Transport / Search and Rescue Helicopter	H-1H	24
Transport / Search and Rescue Helicopter	H-34 Puma	10
Transport / Search and Rescue Helicopter	H-36 / EC-725	1*
VIP Transport Helicopter	VH-35	two

* Received 3 aircraft out of a total of 9 purchased.

* Received 6 units out of a total of 12 purchased.

* Received one aircraft out of a total of 16 acquired.

Defense Presumption

Presumptive Endowments (BRL Millions of 2011 Allocated)

Document	2006	2007	2008	2009	2010	2011
Annual Ley Presuputaria (LOA) 49,187	52,050	49,835	58,871	64,035	61,402	
Proyecto de Ley Presupuestaria Annual (PLOA)	47,941	50,569	49,835	59,754	63,137	60,230

Note: The PLOA is drawn up by the Executive Power and sent to the National Congress which, in turn, applies amendments that may increase predicted presumed values. The PLOA is transformed into a LOA after being approved by the National Congress and sanctioned by the President of the Republic.

2011	1818	199	925	11	11	81	304	16	16,740	1,067	125	7	209	1	2011
2010	2,155	207	898	12	16	104	424	22	15,827	2,596	399	8	196	1	2010
2009	1,771	215	899	11	93	401	117	1,517	1,517	336	6	6	136	two	2009
2008	1,695	154	772	11	83	361	74	1,271	1,271	257	6	6	115	1	2008
2007	1,530	744	744	11	101	589	28	2,372	11,252 12,172	156	7	7	117	4	2007
2006	1,635	744	744	10	75	478	29	2,184	2,184	107	7	7	127	5	2006
2005	1,392	641	641	8	66	429	9	2,355	9,932	2,355	7	7	110	5	2005
2004	1,469	626	626	8	58	543	8	9,408	1,399	9	9	9	99	5	2004
2003	1,103	519	519	7	38	364	5	10,024 10,159	1,087	8	8	8	84	10	2003
2002	55,715	12,504 14,162	25,127 25,181	8	44	571	6	13,345 13,968	1,765	10	10	10	121	3	2002
2001	57,282	12,967 14,864	25,062 25,708	8	75	1,215	10	13,663 14,966	1,734	13	13	13	90	6	2001
2000	51,323	9,028 12,461	22,436 23,181	8	68	1,106	17	12,523 13,716	2,126	13	13	13	51	9	2000

Reference: Department of Defense, Office of the Inspector General, "The Department of Defense's Financial Management System: A Report to Congress," (Washington, DC: GAO, 2000).

Year	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
4	61,788	64,817	59,237	50,287	51,244	70	489	48,828	20	50,215	46	51,203
	6,531	8,852	5,508	3,282	3,476	2,418	2,191	2,305	1,422	3,344	4,388	4,277
	6,534	8,956	5,511	4,076	4,267	2,488	2,680	2,307	1,442	3,348	4,434	4,278
	8,193	8,088	7,348	6,579	6,234	5,830	5,908	5,283	4,564	5,208	6,798	6,275
	367	163	197	251	1,091	975	987	615	837	3,667	3,200	2,982
	226	113	379	66	231	461	1828	604	741	1,248	874	797
	592	276	575	317	1,222	1,435	2,416	1,219	1,578	4,915	4,074	3,379
TOTAL	46,522	48,529	45,325	41,325	39,321	38,023	34,629	32,024	33,228	42,115	41,028	39,020

Year	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
73	179	165	133	110	102	12	323	312	103	142	107	94
	11,021	396	312	232	153	470	323	312	103	142	107	94
	11,021	396	312	232	153	470	323	312	103	142	107	94
	12,024	12,024	12,024	12,024	12,024	12,024	12,024	12,024	12,024	12,024	12,024	12,024
	179	231	179	122	51	12	323	312	103	142	107	94
TOTAL	46,522	48,529	45,325	41,325	39,321	38,023	34,629	32,024	33,228	42,115	41,028	39,020

Year	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Army	5,139	5,086	7,946	1,533	6,839	5,830	5,908	5,383	4,664	5,338	6,798	6,275
Navy	2,386	2,396	2,306	613	2,893	2,083	2,072	2,115	1,729	2,040	2,509	2,186
Air Force	3,194	3,056	2,642	1,26	2,095	2,052	1,942	1,628	1,478	1,642	1,858	1,851
Marine Corps	1,699	1,095	669	478	1,387	1,203	1,533	1,262	1,214	1,465	2,222	2,045
Space Force	860	159	148	126	478	492	361	279	143	190	209	193
Other	51	936	521	487	386	419	361	279	143	190	209	193
Total	810	936	521	487	386	419	361	279	143	190	209	193

Year	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Army	592	276	575	317	1,322	1,435	2,816	1,219	1,578	4,915	4,074	3,279
Navy	320	222	501	274	725	399	1,818	261	357	1,138	700	517
Air Force	272	54	471	23	41	65	90	111	100	1,499	1,216	996
Marine Corps			71	20	45	83	173	279	476	1,488	1,614	1,516
Other					511	888	734	568	644	779	543	350
Total												

2011	453	1	454	2,840	1,239	2,001	6,534	8,956	2,736	952	4,165	1,104	1,096	2010	9	9	8	9	14	22	1917	2,680	1,460	198	105	917	2,488	1,542	292	318	335	313	2006	2007	2008	2009	2010	2011
1,489	1,489	509	439	1841	4,278	2,622	4,434	482	465	865	654	611	947	201	87	207	241	2,307	1,677	267	2,680	1,460	198	105	917	2,488	1,542	292	318	335	313	1,216	417	527	1,096	453		

2011	45	48	26	29	35	33	34	29	37	46	50	57	4,436	1,837	732	1,615	252	195	139	189	1,322	770	1,807	4,089	1,726	873	1,366	1,936	1,93	148	130	167	1,472	485	1,769	3,893	1,821	637	1,685	150	2031	1,662	705	2,212	792	1,639	4,982	1,870	891	2,550	188	153	186	215	790	1,793	5,333	2,075	1,038	2,000	191	164	240	2,298	2,195	1,094	1,238	2,705	1,960	5,108	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
1,436	1,837	732	1,615	252	195	139	189	1,322	770	1,807	4,089	1,726	873	1,366	1,936	1,93	148	130	167	1,472	485	1,769	3,893	1,821	637	1,685	150	2031	1,662	705	2,212	792	1,639	4,982	1,870	891	2,550	188	153	186	215	790	1,793	5,333	2,075	1,038	2,000	191	164	240	2,298	2,195	1,094	1,238	2,705	1,960	5,108	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000													

Annex II

Articulation Plan and Defense Equipment (PAED)

The tables below present the priority projects and subprojects that appear in the PAED, by institution. The acronym VGE, in these tables, refers to the Estimated Global Value in millions of reais, for the period from 2012 to 2031, for each project. These values must require approval from the Federal Government. Early and late closings are preliminary forecasts. Equipment projects are marked with the mark (E). Articulation projects are labeled with the brand (A). The list of projects and subprojects does not necessarily reflect a prioritization order. Some projects/subprojects have double presence as equipment and articulation projects/subprojects.

Priority Projects and Subprojects of the Central Administration

In the Project / Subproject	Start	End	VGE
1 Proyecto Satellite Military Communications System - SISCOMIS (E)	2004	2031	369.0
Subproject Expansion and Maintenance of SISCOMIS	2013	2031	
Subproject Expansion of the Defense Operative Network	2013	2031	
2 Project Secure Military Communications System - SISTED (E) 2004		2031	217.4
Subproject Maintenance and implantation of the Tactical System of Data Link - SISTED	2013	2031	
3 Development Project of the Logistics and Information System Defense Mobilization - SISLOGD (E)	2012	2023	7.7
Subproject Development of the Management Information System for Logistics and Movilización de Defensa	2012	2014	
Subproject Implementation of the Logistics Coordination Center 2012		2013	
Subproject Development of Interoperability Solution between the SIGLD and others			
Subproject Development of the Decision Support System Defense Logistics and Movilización - SADLogMD	2016	2023	
4 Anti-Air Defense Modernization Project Strategic Structures (E)	2012	2023	4,000.0
Subproject Modernización de la Escuela de Artillería de Costa y Antiaircraft			
Subproject Modernización de Defensa Aérea de las Critical Structures	2012	2023	
5 Project Modernization of the Amazon Protection System (E) 2012		2023	752.6

In the Project / Subproject		Start	End	VGE
	Subproject Complementación de Building Infrastructure in Brasilia	2012	2023	
	Satellite Telecommunications Subproject			
	Environmental and Territorial Monitoring Subproject			
	Climate Monitoring subproject			
6	Amazon Cartography System Project (E)	2012	2023	1,004.5
	Subproject Terrestrial Cartography			
	Subproject Geological Cartography			
	Subproject Nautical Cartography			

Priority Projects and Subprojects of the Navy

No Projects / Subprojects		Start	End	VGE
1	Project Nuclear Program of the Navy (A)	1979	2031	4,199.0
	Subproject Construction of the Nuclear Reactor Prototype	1979	2015	
	Subproject Investigation for the Development of the Cycle Nuclear Fuel	1979	2031	
	Subproject Maintenance and Operation of the Technological Center of the Armada in Sao Paulo (CTMSP)	1979	2031	
	Subproject Destitución de las Instalaciones Related to the Nucleoelectric Power Generation	2015	2030	
2	Construction Project of the Nucleus of Naval Power (A)	2009	2047	10,112.1
	Subproject Creación de OM by Infantes de Marina (FN)	2012	2023	
	CFN OM Restructuring Subproject	2013	2031	
	CFN OM Expansion Subproject	2013	2023	
	Subproject Construcción de Laboratorios de CT&I del CFN	2012	2014	
	Subproject PROSUB-1 - Construction of the Base and Shipyard of submarines	2009	2016	
	Subproject Creación de la Estación Naval de Tabatinga	2013	2015	
	Subproject Elevation of the Naval Station of Rio Grande to the Naval Base category	2013	2023	
	Subproject Elevation of the Rio Negro Naval Station to the Naval Base category	2013	2023	
	Subproject Expansion and Modernization of Naval Bases	2013	2031	
	Subproject Expansion of the Naval Air Base of Sao Pedro da Village (BAeNSPA)	2014	2023	
	Subproject Expansion of the Intendency Centers of the Armada (CIM)	2014	2023	
	Subproject Expansion of the Supply Base of the Navy of Rio de Janeiro (BAMRJ) and Construction			
	Subproject Creación y Ampliación de Escuadrones de Helicopters	2013	2023	
	Subproject Expansion of the mooring muelle of the Captaincy of the Ports of Sao Paulo (CPSP), in Santos	2013	2017	
	Subproject Increase of the communication capacity of the networks of the Fijo General Service	2013	2031	

No Projects / Subprojects		Start	End	VGE
	Subproject Creation of the Radio Station of the Armada in Manaus	2013	2031	
	Subproject Red Táctica de Comunicación por Satélites (SATCOM)	2013	2031	
	Subproject Obtaining cryptographic resources for AB	2013	2031	
	Subproject Creation of an organizational structure for the defense and attack of computer networks (cyber space)	2013	2031	
	Subproject Obtaining and maintaining software for the communications and information technology (IT) structure	2013	2031	
	Subproject Creation of redundancy of the Information Technology (IT) support structure of the MB	2013	2031	
	Subproject Revitalización and Modernización del Arsenal de Armada del Rio de Janeiro (AMRJ)	2013	2017	
	Subproject Revitalización and Modernización del Centro de MB System Maintenance (CMS)	2013	2017	
	Subproject Modernization of the Simulators of the MB	2012	2031	
	Subproject Modernization of the Radiogoniometric Station of the MB in Belém	2012	2017	
	Subproject Modernization of the MB Supply Management System - SINGRA	2013	2016	
	Subproject Modernization of the Naval Base of Rio de Janeiro (BNRJ)	2013	2031	
	Subproject Recovery of the infrastructures of the ranches of the MB	2013	2017	
3	Project "Complejo Naval de la 2a Escuadra / 2a Fuerza de Infantes de Marina de la Escuadra (2a FFE)" (A)	2013	2031	9,141.5
	Subproject Construcción de la Base Naval de la 2a Escuadra	2013	2025	
	Subproject Commands and Instruction Centers of the 2nd square	2016	2025	
	Subproject 2nd Armed Forces of Marina de la Escuadra (2nd FFE)	2016	2025	
	Subproject Construction of the 2nd Supply Base square	2016	2024	
	Subproject Construcción de Propios Nacionales Residenciales (PNR) y Área de Expansión de la 2a Escuadra Subproyecto	2016		
	Construcción del Centro de Misiles y Pañoles de Munición de la 2a Escuadra (2016 - 2024).	2016	2024	
	Subproject Construction of the Naval Air Base and Command of the Naval Air Force of the 2nd Escuadra Project	2016	2024	
4	Administration System of the Blue Amazon (SisGAAz) (A)	2011	2033	12,016.6
	Subproject Development, integration and implementation of SisGAAz	2011	2033	5 Proyecto
	Seguridad de la Navegación (A)	2013	2031	245.1
	Subproject Elevation of the category of Captains, Commissioners and Agencies of the Water Traffic Security System (SSTA)	2013	2031	
	Subproject Elevation of the Fluvial Agency of Juazeiro in CP of 3rd Class	2014	2015	
	Subproject Creación de Capitanías, Comisarías y Agencias del SSTA	2014	2031	
	Subproject Elevation of the Fluvial Agency of Tefé (AM) to the category of Captaincy and respective expansion	2013	2031	

No	Projects / Subprojects	Start	End	VGE
6	Personal Project – Nuestro Mayor Patrimonio (A)	2010	2031	5,015.6
	Subproject Expansion and Modernization of Centers and Schools of the Naval Teaching System (SEN), except the CFN	2010	2023	
	Subproject Expansion of CFN Instruction Centers	2013	2023	
	Subproject Expansion of the Service of Selection of the Navy's Personnel	2010	2015	
	Subproject Extension of the Naval War School (EGN)	2010	2023	
	Subproject Extension of the Hospital Naval Marcílio Dias (HNMD)	2010	2023	
	Subproject Expansion of Health Units	2013	2023	
	Subproject Construction of a Naval Polyclinic in the Field Big (RJ)	2013	2013	
	Subproject Construcción del Hospital Naval de Manaus	2014	2031	
	Subproject Construcción de la Policlínica Naval de Penha (RJ)	2013	2015	
	Subproject Construcción de Nucleos de Asistencia Integrada al MB Staff (N-SAIM)	2012	2031	
	Subproject Obtention of National Residential Owners (PNR)	2012	2031	
7	Project Recovery of Operative Capacity (RCO) (E)	2009	2025	5,372.3
	Subproject Modernizaciones de Medios Navales	2012	2025	
	Subproject RCO de los Medios Navales de la Escuadra	2011	2015	
	Subproyecto RCO de los Medios Navales Distritales	2012	2015	
	Subproyecto RCO de los Medios Hidro oceanographic	2012	2015	
	Subproject RCO of the Armada Supply System (SAbM)	2012	2015	
	Subproject Modernización de Medios Aeronavales	2012	2015	
	Subproject Modernización de Medios de FN	2009	2015	
	Ammunition completion subproject	2012	2016	
	RCO Subproject of the Anti-Aircraft Defense Systems	2013	2023	
8	Construction Project of the Nucleus of Naval Power (E)	2009	2047	168,020.8
	Subproject Buque de Investigación Hidro oceanographic (NPHo)	2012	2012	
	Conventional Submarine Subproject (S-BR)	2016	2031	
	Nuclear Propulsion Submarine Subproject (SN-BR)	2016	2047	
	Subproject Buques Aeródromos (NAe)	2013	2033	
	Subproject Multipurpose Ships (NPM)	2013	2031	
	Escort Bucket Subproject (NEsc)	2013	2043	
	Subproject Buques de swept (NV)	2013	2023	
	Subproject Buques Cazaminas (NCM)	2016	2031	
	Subproject Buques de Apoyo Logístico (NApLog)	2013	2029	
	Subproject Submarine Rescue Ships (NSS)	2013	2023	
	Subproject Tugboats from the High Seas (RbAM)	2013	2031	
	Subproject Floating Dykes (DFI)	2013	2027	
	Subproject Buque Hospital (NH)	2026	2031	
	Subproject General Cargo Unloading Vessels (EDCG)	2013	2031	

No Projects / Subprojects	Start	End	VGE
Subproject Embarcaciones de desembarcation of Vehicles and Material (EDVM)	2013	2023	
Subproject Buques Transporte de Apoyo (NTrA)	2013	2028	
Subproject Buques Patrulla Fluvial (NPaFlu)	2013	2026	
Subproject Buques de Transporte Fluvial (NTrFlu)	2013	2025	
Subproject Buques de Apoyo Logístico Fluvial (NApLogFlu)	2016	2022	
Fluvial Towing Subproject (RbFlu)	2013	2018	
Subproject Buques de Asistencia Hospitalaria (NAsH)	2013	2029	
Subproject Buques Patrulla 200 t. (NPa 200t.)	2012	2023	
Hydro Oceanographic Buques Subproject (NHo)	2013	2023	
Subproject Buque Hidro Oceanográfica Farolero (NHoF)	2017	2021	
Subproject Buques Hidro oceanographic Balizadores (NHoB)	2016	2023	
Fluvial Hidro Oceanographic Buques Subproject (NHoFlu)	2013	2023	
Subproject Fluvial Hydro Oceanographic Notices (AvHoFlu) and Hydro Oceanographic Notice (AvHo)	2013	2023	
Oceanographic Support Buque (NApOc) and Polar Buque (NPo) Subproject	2024	2032	
Subproject Buques de Instrucción (NvIn)	2018	2026	
Subproyecto Buque Anfibio	2012	2014	
Subproyecto PROSUPER-1 – NEsc	2013	2023	
Subproyecto PROSUPER-1 – NApLog	2014	2019	
Subproyecto PROSUPER-1 – NPaOc (90m)	2013	2030	
Subproject NPaOc (90m)	2014	2030	
Subproject NPaOc (90m)	2012	2014	
Subproject Buque Patrulla 500 t. (50m)	2009	2025	
Subproject NPa 500t (50 m)	2023	2029	
Subproject PROSUB-1 – Conventional Submarines (S-BR)	2010	2025	
Subproject PROSUB-1 – Nuclear Propulsion Submarine (SN-BR)	2009	2025	
Subproject Aircraft Interception and Attack (AF)	2021	2032	
Subproject Aeronaves de Adelantado Air Alarm (AEW)	2013	2024	
Subproject Aircraft Refueling in Flying and Administrative Transport (COD/ReVo)	2010	2031	
Maritime Surveillance Aircraft Subproject (AnvVigMar)	2016	2024	
Subproject Helicopters of Multiple Use (HME)	2009	2031	
Medium-sized General Purpose Helicopters Subproject (UHM)	2011	2031	Small-
Sized General Purpose Helicopters Subproject (UHP)	2016	2032	
Subproject Helicopters of Instruction (IH)	2014	2025	
Subproject Embarked Unmanned Air Vehicles (Embarked UAVs)	2016	2027	
Subproject Cars Oruga Anfibio (CLAnf)	2016	2026	

No	Projects / Subprojects	Start	End	VGE
	Subproject Combat Vehicles (CC)	2013	2028	
	Subproject Armored Personnel Transport Vehicles on Wheels (VBTP SR)	2012	2028	
	Subproject Armored Personnel Transport Vehicles on Orugas (VBTP SL)	2016	2028	
	Subproject Operative Vehicles (VtrOp) of the CFN	2013	2028	
	Subproject Baterías de Artillería de Campaña	2013	2028	
	Subproject Battery of Multiple Cohetes Launchers (LMF) 2012 2015			
	Subproject Light Weapons and Deaths (ALM)	2013	2028	
	Subproject Anti-Aircraft Defense Systems (SisDefAAe) of the CFN 2013 2023			
	Subproject Electronic Warfare Systems (SisGE)	2013	2028	
	Subproject Communications Equipment	2013	2028	
	Subproject Combat Boats	2013	2028	
	Subproject Engineering Equipment and Modulated Bridges (PntMod)	2016	2028	
	Subproject Unmanned Air Vehicles for the CFN (UAV CFN)	2013	2028	
	Subproject Anti-Aircraft Defense System of the Points Sensitives of the MB	2013	2023	
	Subproject Structuring the Nuclear Defense System, Biological, Chemistry, Radiological and Explosives of the MB (SisDefNBQRE)	2013	2023	
	Subproject Combat Equipment	2013	2023	
	Subproject Torpedos and Mines	2012	2031	
	Subproject Misiles, Cohetes, Bombas y Cebos	2012	2031	
9	Blue Amazon Administration System Project (SisGAAz) (E)	2013	2024	79.0
	VANT Subproject – SisGAAz	2013	2024	
10	Proyecto Seguridad de la Navegación (E)	2012	2031	387.7
	Subproject Embarcaciones de Apoyo	2013	2024	
	Subproject Embarcaciones para el SSTA	2013	2023	
	Subproject Embarcaciones para el SAbM	2012	2031	

Priority Projects and Subprojects of the Army

No	Projects / Subprojects	Start	End	VGE
1	Proyecto Ampliación de la Capacidad Operativa (A)	2011	2035	96,107.8
	Subproject Implantation and adaptation of Military Organizations in the Amazon	2011	2035	
	Subproject Implementation and Adaptation of Military Organizations in the Western Military Command	2011	2035	
	Subproject Implantation and adaptation of Military Organizations in the other Area Military Commands	2011	2035	
2	Proyecto Capacity to Act Fuera del Territorio Nacional (A)	2011	2035	274.9
	Subproject Preparing a Force of Valor Brigade to act in peace missions or as an expeditionary force	2011	2035	
3	Project Estructura de Apoyo a la Formación, Especialización y Professional Perfection (A)	2011	2035	80.3
	Subproject Adequacy of the training structure, specialization and perfection of the frames	2011	2035	
4	Military Family Support Project (A)	2011	2035	66.4
	Subproject Adequacy of the support structure for the military family in the fields of education, health, housing, social assistance, religious assistance and leisure	2011	2035	
5	Project Recovery of the Operative Capacity of the Terrestrial Force - RCO (E)	2012	2022	11,426.8
	Subproject Recovery and acquisition of operating vehicles, vessels and artillery material	2012	2022	
	Subproject Recovery of Aircraft from Army Aviation and Training	2012	2022	
	Subproject Completion of the individual equipment of the combatant of the present - COBRA Project	2012	2022	
	Subproject Completion of stocks of ammunition, armament and collective equipment, fuels and lubricants and operating ratio	2012	2022	
6	Project Cyber Protection System - Cyber Defense (E)	2011	2035	839.9
	Subproject Implementation of the Planning and Implementation Structure of Cybersecurity	2012	2023	
	Subproject Implementation of the scientific research structure in the cybernetic area	2012	2015	
	Subproject Implementation of the technological support structure and development of systems aimed at the activities of the Sector cybernetic	2012	2015	
	Subproject Adaptation of the Structure of Training, Preparation and Operative Use for the needs of the Cybernetic Sector	2012	2015	
	Subproject Implementation of the Cyber Defense Center (CDCiber), with the capacity to evolve the Armed Forces Cyber Defense Command and creation of the National Defense School cybernetics	2012	2023	
	Software-Defined Radio Development Subproject - RDS	2012	2035	

No	Projects / Subprojects	Start	End	VGE
7	Proyecto Nueva Familia of Armored Vehicles on National Manufacture Wheels - GUARANI (E)	2011	2034	20,855.7
	Subproject Obtention of the command, control and simulation systems and development of the doctrine, preparation and use	2011	2034	
	systems , commercialization of vehicles, prom. de la nac. of ammunition and development of a weapons system	2011	2034	
		2011	2034	
	Subproyecto Adecuación de la infra. for the installation of OMs, implementation of the logistical support system and development of environmental	2011	2034	
	protection actions Subproject Development of a management system and training of human resources	2011	2020	
8	Project Integrated Land Border Monitoring System - SISFRON (E)	2011	2035	11,992.0
	Subproject Development and implementation of the evaluation and decision support system	2012	2035	
	Subproject Execution and maintenance of infrastructure works	2012	2021	
	Subproject Development and implementation of the performance support system	2012	2021	
9	Project Integrated System for the Protection of Strategic Structures Ground - PROTECT (E)	2012	2035	13,230.6
	Subproject Protection of Land Strategic Structures	2012	2035	
	Subproject Expansion of the operational capacity of the Aviation of army	2012	2035	
	Subproject Training of the Army for the protection of major events	2012	2031	
	Subproject Training of the Army for actions in support of public security	2012	2023	
	Subproject Capacitación del Ejército para acciones en apoyo a la Civil Defense	2012	2031	
	Subproject Adequacy of an Infantry Brigade to protect Land Strategic Structures - Pilot Project	2012	2031	
10	Project Air Defense System (E)	2010	2023	859.4
	Subproject Management, documentation and development of technologies Antiaircraft Defense System	2010	2023	
	Subproject Obtaining low and medium height anti-aircraft defense systems	2012	2023	
	Subproject Procurement of logistics infrastructure, military works and education	2013	2023	
11	ASTROS Misiles and Cohetes System Project 2020 (E)	2011	2023	1,146.0
	Subproject Acquisition of an ASTROS 2020 missile and coil system	2012	2023	
	Subproject Adaptation of the support infrastructure	2013	2023	
12	Proyecto Ampliación de la Capacidad Operativa (E)	2011	2023	2,158.9

No	Projects / Subprojects	Start	End	VGE
	Subproject Reestructuración de Fuerzas Armadas	2011	2014	
	Subproject Estructuración de Fuerzas de Actuación Estratégica	2011	2023	
13	Project Information Systems for the Army (E)	2011	2031	1,069.5
	Subproject Restructuring of the Information Operating System	2011	2031	
	Subproject Restructuring of the Army's Logistic System	2011	2031	
	Subproject Restructuring of the Command and Control System and Information Technology of the Army	2011	2031	
	Subproject Restructuration of the Army Doctrine System	2011	2031	
14	Proyecto System of Science, Technology and Innovation of the Ejército (E)	2011	2035	47,923.1
	Subproject Procurement of defense products in the areas of simulation, command and control, armament, ammunition, engineering and equipment	2011	2035	
	Subproject Development and acquisition of the individual combatant system of the future - Project SOLDADO DEL FUTURO	2011	2035	

Priority Projects and Subprojects of the Air Force

No	Projects / Subprojects	Start	End	VGE
1	Organizational and Operative Management Project of the Fuerza Command Air (A)	2010	2030	5,689.0
	Subproject Reestructuración de Instalaciones	2010	2030	
	Subproject Logistics	2014	2022	
2	Proyecto Support to the Military and Civilians of the Command of the Air Force (A)	2010	2030	3,229.6
	Subproject Movilidad Operativa	2012	2027	
3	Project Modernization of Human Resources Training and Post Training Systems (A)	2010	2028	352.0
	Subproject Infraestructura de Enseñanza	2010	2028	
	Subproject Human Centrifuge	2014	2015	
4	Project Recovery of Operative Capacity (E)	2009	2019	5,546.7
	Subproject Modernization of Aircraft on the Move (LA-1, F-5, P-3A, KC-130, C-95, Y-99 and R-99)	2009	2017	
	Subproject Recovery of the Availability of Aircraft	2012	2015	
	Subproject Recovery of the Operation of the Pilots	2012	2015	
	Subproject Recomposition of the Armament Stock	2012	2019	
5	Air Space Control Project (E)	2008	2030	938.3
	Subproject Adaptation of Aircraft to the New Communication System, Navigation and Surveillance/Air Traffic Management (CNS / ATM)	2014	2023	
	Subproject Detection and Control	2008	2030	
6	Proyecto Capacitación Operativa de la Fuerza Aérea Brasileña (E)	2009	2030	55,121.0
	Subproject Aeronave de Caza De Misión Múltiple (F-X2)	2013	2026	
	Subproject Heavy Aircraft for Presidential Transport (VC-X2)	2013	2014	
	General Purpose Medium Helicopter Subproject (H-XBR/EC-725)	2009	2017	
	Subproject Heavy Cargo and Refueling Aircraft (KC-X2)	2013	2016	

No	Projects / Subprojects	Start	End	VGE
	Subproject Cellular Command and Control Unit	2013	2015	
	Subproject Aircraft Transport, Testing and Inspection in Flight	2013	2028	
	Aircraft Search and Rescue Subproject	2015	2016	
	Subproject Maritime Patrol Aircraft	2016	2028	
	Reconnaissance Aircraft Subproject / VANT	2012	2024	
	Rotary Wing Aircraft Subproject	2012	2026	
	Subproject Aeronaves de Instrucción	2016	2025	
	Terrestrial Security subproject	2011	2023	
	War Systems Subproject	2009	2030	
7	Scientific and Technological Training Project of the Air Force (E)	2008	2033	49,923.9
	Subproject Research and Development	2012	2031	
	Subproject Productos de Interés de Defensa en Tecnología de la información	2008	2030	
	Aircraft Development subproject	2018	2033	
8	Project Strengthening the Aerospace and Defense Industry Brazilian (E)	2009	2030	11,370.2
	Subproject National Transport and Refueling Aircraft (KC 390)	2009	2024	
	Subproject Future Modernization of Aircraft	2016	2030	
9	Project Development and Construction of Aerospace Artefacts (E)	2015	2030	0.0
	Military Use Satellite Subproject	2015	2030	

APPENDIX

GLOSSARY

Civil and Social Action (ACISO) - Activity carried out by the Armed Forces with the aim of providing assistance and assistance to communities, developing the civil and community spirit of citizens, in the country or abroad, to solve immediate and urgent problems .

Legal Amazon - Region that encompasses the states of Acre, Amapá, Amazonas, Pará, Rondônia and Roraima and part of the states of Mato Grosso, Tocantins and Maranhao, totaling a surface of approximately 5.2 million km², corresponding to a 61 % of the Brazilian territory. It was instituted with the aim of defining the geographic delimitation of the political region that captures tax incentives, with the purpose of promoting regional development.

Aprestamento - Set of measures for the promptness or preparation of a Force or part of it, specifically those related to instruction, training, personnel, material or logistics, intended to put it in conditions to be used at any time.

Notice to sailors - The "Warnings to navigators" are periodical publications, published in the form of leaflets, with the main purpose of providing sailors and users of rivers in general with information aimed at updating charts and nautical publications

Brazilian cases, according to what is said in Rule 9 of Chapter V of the International Convention for the Safeguarding of Human Life at Sea (SOLAS/74).

Centro de Comando y Control - Operations center set up to provide connections between the military command structure do y los scalfones superior y subordinate.

Singular Command - Operational Command made up of elements belonging to a single Fuerza, to which it is directly subordinated. Same as independent command.

Contingenciamiento - Restriction of expenses foreseen in the annual budget imposed by presidential decree on the units executing the programs. While the values are contingent, they cannot be used against any service or purchase of products with these resources.

Convention of the United Nations on el Derecho del Mar (UNCLOS) - The UNCLOS was carried out in 1982 and ratified by Brazil on December 22, 1988, together with an interpretative statement, and provides that other States do not have the right to carry out maneuvers or exercises in the exclusive economic zone (ZEE) without the consent of the Brazilian State

leño. Brazil has in the EEZ and on the continental platform (PC) the exclusive right to build, authorize and regulate the operation and use of any type of installation or structure, without exception, whatever is its nature or purpose. Among the duties established by the Convention, those related to the preservation of the marine environment and the control, in administrative, technical and social terms, of the ships that use their flag stand out deservedly.

Defense military doctrine - Part of the doc

Brazilian military trine that addresses the general norms of the organization, the preparation and use of Armed Forces when established in activities related to the defense of Country. Your subjects are directly related with the guarantee of the sovereignty and the territorial and patrimonial integrity of the country, and also with regard to the national interests.

Elasticity of Armed Forces - Capacity to rapidly increase the size of Military forces when the circumstances so required, mobilizing the country's human and material resources on a large scale.

State of defense - Measure of defense of the State and democratic institutions created by the President of the Republic to preserve or promptly establish, in restricted and determined locations, public order or social peace when these are threatened by serious and imminent institutional instability or hit by disasters natural ones of great proportions in nature.

State of siege - State defense measure of the democratic institutions decreed by the President of the Republic, after authorization by the National Congress, in cases of serious commotion with national repercussions, of occurrence of facts that demonstrate the ineffectiveness of the measure taken during the State

defense, declaration of a state of war or response to foreign armed aggression.

Nation-State - Delimited territory composed by a government and a united population of ethnic cultural composition.

Political and strategic stature - Set of attributes of a nation that are perceived and recognized by other nations and that define the relative level of their participation and influence in the international context.

Strategic structures - Installations, vices, welfare and systems whose interruption or destruction, total or partial, will have a serious impact on the social, economic, political, environmental and international Plan or on the security of the State and society.

Evolution in Military Affairs (EAM) - Co-noted as a form of radical advance in technology with military purposes, but interconnected to operational concepts and organizational structures of obsolete technologies.

Presupposed execution - Use of the credits allocated in the General assumption of the Union and in the additional credits, seeking the realization of the subprojects and/or subactivities attributed to the assumed units.

Flexibility of Armed Forces - Carac teristic that must have a military force in order to organize itself for the fulfillment of a specific mission, both to attend to the different phases of a Plan or order of operations, as well as to adapt to the variations of situation that may present during the fight the mission received.

Singular Force - Generic designation of one of the Armed Forces: Armada, Ejército and Fuerza Aérea.

IBSA Forum - Trilateral initiative between India, Brazil and Southern Africa, developed with the intention of promoting South-South cooperation. Established in June 2003, IBSA is a coordination mechanism between three emerging countries, three multiethnic and multicultural democracies, which are determined to redefine their place in the community of nations, to unite their voice among the most global and to contribute to it. construction of a new international architecture. In this movement, it is also open to concrete projects of cooperation and help with countries with a lower degree of development.

Commercial G-20 - Group of developing countries representing 60% of the rural population, 21% of agricultural production, 26% of exports and 18% of world imports. The grouping is made up of 23 countries from three continents - Southern Africa, Argentina, Bolivia, Brazil, Chile, China, Cuba, Egypt, Ecuador, Philippines, Guatemala, Mexico, India, Indonesia, Nigeria, Pakistan, Peru, Paraguay, Thailand, Tanzania, Uruguay, Venezuela and Zimbabwe - and ambitiously defends the fulfillment of the three pillars of the agricultural mandate of the Doha Round, such as sea, access to markets (tariff reduction), elimination of subsidies to export and reduction of domestic support subsidies (mainly production).

Financial G-20 - Group established in 1999 with the aim of bringing together developed countries and systemically more important developing countries, considering cooperation between the most economic and financial sectors. Members of the G-20: Southern Africa, Germany, Saudi Arabia, Argentina, Australia, Brazil, Canada, China, South Korea, United States, France, India, Indonesia, Italy, Japan, Mexico, United Kingdom, Russia, Turkey, European Union (Comisión Europea y Presidencia del Consejo Europeo). The members of the G-20 debate proposals for new growth and stability models

economic, with the aim of correcting the major international macroeconomic imbalances. The intensification of the coordination and exchange of information on national macroeconomic management will result in a more stable and predictable international economy.

Negative security guarantees - Guarantees understood as part of an international arrangement that presupposes the use of nuclear weapons for the purpose of protecting non-nuclear States against the use or threat of use of nuclear weapons.

Personnel Management by Skills - Ca pacification oriented towards the development of the set of knowledge, skills and attitudes necessary for the performance of the functions of the employees, seeking the fulfillment of the objectives of the institution.

Transnational offenses - Offenses divided into of the major fields: the crimes against the person, involving drug trafficking, arms and ammunition trafficking, human trafficking and migrant smuggling; and financial crimes, such as money laundering and corruption. Also noteworthy is cybercrime, as a manifestation of the global reach and the increasing technical complexity of criminal activities.

Interoperability - Capacity of national or allied military forces to operate effectively, according to the established command structure, in the execution of a mission of a strategic or tactical nature, combat or logistics, in training or instruction.

Strategic map - Visual representation of the strategic objectives of an institution and its inter and intra organizational relationships.

Fisible material - Material capable of sustaining a chain reaction of nuclear fission.

Mission of Military Observers Ecuador -

Peru (MOMEPE) - Mission created on March 10, 1995, by means of the "Definición de procedimiento acordado entre las partes y los países que garantiza el Protocolo de Río de Janeiro 1942", with the objective of resolving the border conflict between Peru and Ecuador. It lasted approximately four years and four months and was completed, with total success, on June 30, 1999.

Misiones de misericordia - Type of mission that includes the rescue, in an area of difficult access, of a patient in a serious state of health.

Joint Operation - Operation that encompasses the coordinated use of more elements of a singular strength, with interdependent or complementary purposes, without there being constitution of a single command on the scale previously considered.

Peacekeeping Operations - Peacekeeping operation carried out by means of a contingent of Naval, Land and Air Forces, provided by Member States, to maintain international peace and security.

Non-War Operations - Operations in which the Armed Forces, even using Military Power, are used in tasks that do not cover the actual combat, except in special circumstances, where this power is used to a limited extent. There may even be cases where the military does not necessarily act in a leading role.

Maritime Power - Promotion of national power, resulting from the integration of the resources available to the nation for the use of the sea and inland waters, whether as an instrument of political and military action, or as a factor of economic development and social, seeking to conquer and maintain the national objectives.

Military Power - Expression of national power made up of predominantly military means available to the nation to, under the direction of the State, promote, by dissuasion or by violence, the achievement of the maintenance of national objectives.

Aerospace Military Power - An integral part of the aerospace power that comprises the Air Force, its bases and its command and control, logistical and administrative structures, as well as the means awarded by the naval and land military powers and other means, when linked in fulfillment of the mission of aerospace military power and submitted to some type of guidance, command or control of military aerospace authority.

Land Military Power - An integral part of land power capable of acting militarily on land and in certain limited areas of internal waters of interest to land operations, as well as, on a limited basis, in the superyacht airspace. It comprises the Terrestrial Force, including its own air and river means, its command and control, logistical and administrative structures, as well as the forces awarded by the naval and military aerospace powers, and other means, when linked to the fulfillment of the mission of the Army and subject to some type of guidance, command or control by terrestrial authority.

National Power - Capacity possessed by the group of men and means that constitute a nation, acting in accordance with the national will, to achieve and maintain national objectives. It manifests itself in five expressions: political, economic, psychosocial, military and scientific technological.

Naval Power - An integral part of maritime power capable of acting militarily at sea, in inland waters and in certain limited land areas of interest to naval operations

them, including the overhead airspace. It encompasses the Naval Fuerzas, including the naval means, airships themselves and those of Infantes de Marina, their bases, support positions and their command and control, logistical and administrative structures, as well as the means ad judged by the terrestrial and military powers aerospace, among others, when linked to the fulfillment of the mission of the Navy and are involved in some type of orientation, command or control of naval authority.

Projection of power over land - Basic task of naval power that encompasses a wide range of activities, which may include naval bombardment, naval air bombardment and amphibious operations. In this task, you are also in the frame

of attacks on land with missiles, from naval and naval air units. The actions can have one or more of the following purposes: reduce enemy power by destroying or neutralizing important objectives; to conquer a strategic area for the conduct of naval or air warfare, or to propitiate the start of a land campaign; deny the enemy the use of a captured area; support operations on land; and safeguarding human life or resca tar people and material of interest.

Proyección del Poder nacional - Process in which a nation increases, in a peaceful way, its influence on the international stage, by means of a demonstration produced with resources of all expressions of national power.

Ready to use - Ability to act quickly in any operating environment in a previously defined strategic area.

Recluta - Young summoned who provides service initial military.

Revolution in Military Affairs (RAM) - Great change in the nature of war, resulting from the use of new technologies. The concept encompasses modifications in the doc-

trina, in operational use and in the structure of military organizations.

Dual technology - Refers to discoveries initially intended for applications in the military area, having its technological base adopted for use in the civilian area.

Military technology - Set of all scientific, empirical, intuitive knowledge, in addition to skills, experiences and organization, required to produce, provide and use goods and services for war purposes.

Treaty of Antarctica - Treaty signed on the 1st of December 1959, as a result of the Washington Conference, in force since June 23, 1961. The adoption of the Antarctic Treaty was only possible by means of the demilitarization of the continent and the skilful solution found in its art. IV para las cues tiones territoriales. Based on an agreement essentially motivated by strategic and security concerns, it was possible, over the years, to develop a network of norms and international conventions for the use and conservation of natural resources. was

It is also possible, by means of the Madrid Protocol, to develop a broad regime of environmental protection, which declares Antarctica as a "natural reserve, dedicated to peace and science". One of the greatest merits of the treaty, which very well reflects its historical importance, was the creation of a space of peace and cooperation directed towards scientific research, a unique example of

interaction between states.

Unión de las Naciones Sur-Americanas (UNA SUL) - International organization whose objective is to promote regional integration based on the convergence of interests around the consolidation of a self-identity and the economic and social role of the region. The following countries are part of UNASUR: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Surinam, Uruguay and Venezuela.

LIST OF ABBREVIATIONS AND ACRONYMS

AC - Acre

AL - Alagoas

AP - Amapá

AM - Amazon

BA - Bahia

CE - Ceará

DF - Federal District

ES - Holy Spirit

GO - Goiás

MA - Maranhao

MT - Mato Grosso

MS - Mato Grosso del Sur

MG - Minas Gerais

PA - Pará

PB - Paraíba

PE - Pernambuco

PI - Piauí

PR - Paraná

RJ - Rio de Janeiro

RN - Rio Grande del Norte

RS - Rio Grande del Sur

RO - Rondônia

RR - Roraima

SC - Santa Catarina

SP - Sao Paulo

SE - Sergipe

TO - Tocantins

ABACC - Brazilian-Argentine Agency for Accounting and Control of Materials Nuclear

ABDI - Brazilian Development Agency industrial

ABED - Asociación Brasileña de Estudios of defense

ABIMDE - Asociación Brasileña de las Industrias de Materiales de Defensa y security

ABIN - Brazilian Intelligence Agency

ACISO - Civil and social actions

ACS - Alcantara Cyclone Space

ADESG - Association of Graduates of the Higher School of War

AEW - Alarm Aircraft Subproject Advance Air

AF - Aircraft Intercept and Attack Subproject

AFA - Academia de la Fuerza Aérea

IAEA - International Energy Agency atomic

AIOP - Operative Intelligence Advisory

AJB - Brazilian Jurisdictional Waters

- ALM** - Subproject Armas Ligeras y Moteros
- AMAN** - Academia Militar de las Agulhas
black
- AnvVigMar** - Maritime Surveillance Aircraft Subproject
- APEX** - Brazilian Agency for the Promotion of
Exports and Inversions
- ASOCEA** - Asesoría de Seguridad Operativa del Control
del Espacio Aéreo
- ASPAER** - Asesoría Parlamentar del Coman
before the Air Force
- ASPAR/MD** - Parliamentary Asesoría del Minis
fender line
- ASPLAN** - Asesoría de Planificación Institu
Ministry of Defense
- ASSHOP** - Hospital assistance to the people on the
riverside
- AvHo** - Hidro Oceanográ Warning Subproject
we stay
- AvHoFlu** - Subproject Fluvial Hydro Oceanic Warnings
- BACS** - Almirante Castro y Silva Base
- BASIC** - Brazil, Southern Africa, India and China
- BID** - Defense Industrial Base
- BND0** - National Ocean Data Bank
graphics
- BNRJ** - Naval Base of Rio de Janeiro
- BRICS** - Brazil, Russia, India, China and Africa
Southern
- CLog** - Logistic Command
- CA** - Cuerpo de la Armada
- CAAML** - Almirante Entertainment Center
Marquess of Leao
- CAE** - Strategic Affairs Office
- CAEPE** - Higher Studies in Politics Course
y Strategy
- CAM** - Armada Auxiliary Corps
- CAN** - National Air Mail
- CAP** - Officer Perfectioning Course
Les de la Fuerza Aérea
- CAPES** - Coordination of Perfeccionamiento
of Senior Level Staff
- CAS** - Course of Perfectioning of
Sagents
- CASNAV** - Center for Analysis and Systems at
valleys
- CASOP** - Centro de Apoyo a Sistemas Ope
ratives
- CBERS** - Satellite Chino-Brasileño de Recur
terrestrial sound
- CC** - Combat Cars
- CCEM** - Command and Chief State Course
- CCEMSP** - Study Coordination Center
gods of the Armada in Sao Paulo
- CCIEx** - Army Internal Control Center
- CComSEx** - Social Communication Center
del Ejército
- CCOPAB** - Joint Operations Center
of Peace of Brazil
- CCSM** - Center for Social Communication of
the Navy
- CBD** - Convention on Diversity
biological
- CDCiber** - Cyber Defense Center
- CDS** - Consejo de Defensa Sudamericano
- CECOMSAER** - Communication Center So
air force official
- CEMOS** - Major State Course for Senior Officials
- CENIPA** - Center for Investigation and Prevention
Aeronautical Accidents
- CENSIPAM** - Management and Operative Center of
Amazon Protection System
- CEPE** - Center for Political Studies and
Strategic
- CFN** - Infante de Marina Corps
- CFO/QC** - Official Training Course
del Cuadro Complementary
- CFOAV** - Official Training Course
aviators

- CFOINF** - Official Training Course
Infantry of the Air Force
- CFOINT** - Official Training Course
stewards
- CFRA** - Women's Reserve Body
the Air Force
- CGCFN** - Comando-General del Cuerpo de
Infants of Marina de la Armada
- CHLOG** - Logistics Headquarters
- CHM** - Hydrographic Center of the Navy
- CHOC** - Headquarters of Joint Operations
- CIAA** - Almirante Instruction Center
Alexandrian
- CIAAN** - Centro de Instrucción y Entrena miento
Aeronaval Almirante José Maria del
Amaral Oliveira
- CIAAR** - Air Force Instruction and Adaptation Center
- CIAER** - Intelligence Center of the Force
aerial
- CIAMA** - Training and Entrepreneurship Center with
Admiral Attila Monteiro Aché
- CIASC** - Almirante Sylvio de Camargo Instruction Center
- CIAvEx** - Aviation Instruction Center
del Ejército
- CIAW** - Almirante Wan Instruction Center
denkolk
- CICFN** - Body Instruction Center
Infants of the Navy
- CIE** - Army Intelligence Center
- CIGAR** - Graduate Education Center
from the Air Force
- CIM** - Cuerpo de Intendentes de la Armada
- CINDACTA** - Integrated Defense Center
Air and Air Traffic Control
- CIOpGLO** - Instruction Center for Law and Order
Guarantee Operations
- CIOpPaz** - Opera Instruction Center
sions of peace
- CISSET** - Secretariat for Internal Control
- CJACex** - Adjunct Legal Consultancy of
army command
- CLA** - Alcântara Launch Center
- CLAnf** - Car Oruga Amfibio
- CLBI** - Barrier Launch Center
from hell
- CLPC** - Commission of Limits of the Platform
Continental
- CMA** - Military Command of Amazonia
- CMBP** - Brazilian Military Cooperation in Pa
raguay
- CMEM** - Shipping Maintenance Center
small caciones
- CMiD** - Military Defense Council
- CMiIA** - Military Area Commands
- CML** - Comando Militar del Este
- CMNE** - Northeast Military Command
- CMO** - Western Military Command
- CMP** - Altiplano Military Command
- CMS** - Southern Military Command
- CMSE** - Southeastern Military Command
- CNS / ATM** - Communications System,
Navigation and Surveillance / Air Traffic Management
- UNCLOS** - Convención de las Naciones Uni
das sobre el Derecho del Mar
- CNUMAD** - Conference of the United Nations on
Environment and Sustainable Development
- COBEN** - Comisión Binacional de Energía
Nuclear
- COBRA** - Brazilian Combatiente Program
- COD/ReVo** - Refueling Aircraft
to en Vuelo y Transporte Administrativo
- CODA** - Defense Operations Center
Aerospace
- COLOG** - Logistic Command
- COMAR** - Regional Air Command

- COMARA** - Comisión de Aeropuertos de la Amazon region
- COMDEFENSA** - Cadena Pro Committee ductiva de la Industria de Defensa
- ComDiv-1** - Command of the Primera División de la Escuadra
- ComDiv-2** - Comando de la Segunda Division de la Escuadra
- ComDN** - Commandos of the Naval Districts
- ComemCh** - Command en-Jefe de la Escuadra
- ComFFE** - Commando de la Fuerza de Infantes de la Escuadra
- ComForAerNav** - Air Force Command ronaval
- ComForS** - Commando de la Fuerza de Submarines
- ComForSup** - Command of the South Force perficie
- COMGAP** - General Support Command
- COMGAR** - General Operation Command airlines
- COMGEP** - General Staff Command
- ComOpNav** - Na Operations Command valleys
- CONJUR** - Legal Consultancy
- COPUOS** - Committee for the Pacific Use of the Outer Space
- COTER** - Land Operations Command
- CPAB** - Convention for the Prohibition of Biological and Toxic Airs and their Destruction
- CPAQ** - Convention for the Prohibition of Chemical Weapons and their Destruction
- CPEA** - Aerospace Policy and Strategy Course
- CPEM** - Maritime Policy and Strategy Course
- CPO** - Official Promotion Commission
- CPOR** - Reserve Officials Preparation Center
- CPPN** - Standing Committee on Nu Policy clear
- CRE** - Comisión de Relación Exteriores del Senate
- CREDN** - Comisión de Relaciones Exteriores y de Defensa Nacional de la Cámara de los deputies
- CSG** - Guyanese Space Center
- CSM** - Body of Health of the Navy
- CSUPE** - Superior Course in Politics and Strategy
- CTA** - Technical and Aerospace Center
- CTBT** - Treaty for the Complete Prohibition of the Nuclear Tests
- CTEX** - Centro Tecnológico del Ejército
- CTMSP** - Technological Center of the Navy in Sao Paulo
- DE LAS** - Directorate and Superior Assistance
- DCT** - Department of Science and Technology
- DCTA** - Department of Science and Technology aerospace engineering
- DE** - Army Divisions
- DEC** - Department of Engineering and Cons trick
- DECEA** - Air Space Control Department
- DECEX** - Department of Education and Culture of the Army
- DEPENS** - Teaching Department of the Air Force
- DGMM** - Dirección General del Material de la Armada
- DGN** - Directorate General of Navigation
- DGPM** - Directorate General of Personnel the Navy
- DHN** - Directorate of Hydrography and Navigation
- TIP** - Derecho Internacional de los Conflic armed
- DN** - Naval District
- DNOG** - División Naval en Operaciones de War

DPC - Directorate of Ports and Coasts	ESG - Escuela Superior de Guerra
EAM - Evolution in Military Affairs	EsIE - Escuela de Instrucción Especializada
EAOAR - Escuela de Perfeccionamiento de Officials of the Air Force	ESPCEX - Escuela Preparatoria de Cadetes del Ejército
EASA - School of Perfection of Sergeants of Arms	EsSA - Escuela de Sargentos de las Armas
EB - Brazilian Army	EsSEx - Escuela de Salud del Ejército
EBF - Brazo Fuerte Strategy	EsSLog - School of Logistics Sargents
ECEMAR - Escuela de Comando y Estado Mayor of the Fuerza Aérea	F Cj - Joint Force
ECEME - Escuela de Comando y Estado Ma yor del Ejército	F Cj Op Esp - Joint Force of Special Operations
EDCG - Landing Vessels from general cargo	Brazilian Air Force - Brazilian Air Force sileña
EDVM - Landing Vessels from Vehicles and Material	FAe - Air Force
EEAR - Escuela de Specialists de la Fuer air za	FEB - Brazilian Expeditionary Force
EED - Strategic Defense Company	FFE - Fuerza de Infantes de la Escuadra
EETer - Land Strategic Structures	FIESP - Federation of the Industries of the state of Sao Paulo
EGN - Escuela de Guerra Naval	FINEP - Financier of Studies and Projects
EMA - State Mayor of the Navy	FMCT - Treaty on Expulsion of the Pro duction of Physical Materials
EMAER - Estado Mayor de la Fuerza Aérea	FT Cj - Fuerza-Tarea Conjunta
EMBRAER - Brazilian Company of Fuerza aerial	FTM - Fuerza-Tarea Marítima
EMBRAPA - Brazilian Agricultural Research Company	Gab Cmt Ex - Cabinet of the Commander army
EMCF A - Estado Mayor Conjunto de Fuerzas Armed	GABAER - Cabinet of the Commander of the Air Force
EME - State Mayor of the Army	GCM - Cabinet of the Commander of the Navy
EN - Escuela Naval	GEIV - Special Group for Inspection at Flight
END - National Defense Strategy	GLO - Garantía de la Ley y de la Orden
EPCAR - Cadet Preparatory School del aire	GM - Guardiamarina
EsAEx - Escuela de Administración del Ejér quote	Gpt Op Fuz Nav - Operative Groups of Infantes de Marina
EsAO - Escuela de Perfeccionamiento de Officials	GptFN - Groupings of Infantes de Ma rina
EsFCEX - Escuela de Formación Complementar del Ejército	GSIPR - Institutional Security Office of the Presidency of the Republic
	GTE - Special Transport Group
	HCAMP - Hospital de Campaña
	HFA - Armed Forces Hospital

- HI** - Instructional Helicopters
- HME** - Multiple Purpose Helicopters
- HNMD** - Marcílio Dias Naval Hospital
- IAE** - Air Force and Space Institute
- IAF** - International Accreditation Forum
- IBSA** - India, Brazil and Southern Africa
- ICT** - Scientific and Technological Institution
- IDOC** - Institute of Doctrine of Operations joint
- IEAPM** - Institute of Estudios del Mar Almirante Paulo Moreira
- IEAv** - Institute of Advanced Studies
- IFI** - Institute of Promotion and Coordination In industrial
- IGC** - General Index of Courses
- IME** - Military Engineering Institute
- INB** - Nuclear Industries of Brazil
- INCAER** - Historical and Cultural Institute of the Air Force
- IPC** - Pandiá Calogeras Institute
- IPD** - Research and Development Institute
- IPqM** - Institute of Investigations of the Navy
- ITA** - Technological Institute of Fuerza Aérea
- LABGENE** - Laboratorio de Generación de Core and Electrical Energy
- LBDN** - White Book of National Defense
- LMF** - Multiple Cohete Launchers
- LOA** - Annual Statutory Ley
- MB** - Brazilian Navy
- MCTI** - Ministry of Science, Technology and innovation
- MD** - Ministry of Defense
- MDIC** - Ministry of Development, Industry and Foreign trade
- MINUSTAH** - Mission for the Stabilization of United Nations in Haiti
- MMBIP** - Brazilian Military Mission of Instruction en el Paraguay
- MODSUB** - Program for the Modernization of submarines
- MRE** - Ministry of Foreign Affairs
- MT** - Territorial Sea
- MTAB** - Technical Mission Bra Air Force sileña
- NAe** - Buques-Aerodromes
- NAPLog** - Logistic Support Buckets
- NAPLogFlu** - Logistic Support Buckets river
- NAPOc** - Oceanographic Support Bucket
- NAsH** - Hospital Assistance Bucket
- NCM** - Buques Cazaminas
- NDCC** - Unloading Bucket for Cars Combat
- NDD** - Dársena Landing Buque
- NEsc** - Escort Ships
- NFBR** - Nueva Familia de Blindados about wheels
- NH** - Buque Hospital
- NHo** - Hydro Oceanographic Ships
- NHoB** - Bali Hydro Oceanographic Ships makers
- NHoF** - Buque Hidro Oceanográficas Farolero
- NHoFlu** - Hydro Oceanographic Buckets Flu vials
- NPa 200t.** - Patrol Buques 200 t.
- NPaFlu** - Buques-Patrulla Fluvial
- NPC-MD** - Commercial Promotion Center
- NPHo** - Hydro Ocean Research Buque nographics
- NPM** - Multipurpose Ships
- NPo** - Polar Buque
- NPOR** - Reserve Officers Preparation Nucleus
- NSG** - Nuclear Suppliers Group
- NSS** - Submarine Rescue Ships
- NTrA** - Buques Transporte de Apoyo

NTrFlu - River Transport Buques	PNEPRODE - National Export Policy ions of Defense Products
NV - Swept Buques	PNID - National Policy for the Industry of fender
NvIn - Instruction Packs	PNM - Nuclear Program of the Navy
OFR - Reservation training organization	PNR - Propios Nacionales Residenciales
OM - Military Organization	PntMod - Engineering Equipment and Modulated bridges
OMPS - Military Organization Provider of Services	PPA - Plan Plurianual de la Unión
UN - Organization of the United Nations	PRM - Re-equipment Program Armada
OPCW - Organization for the Prohibition of Chemical weapons	PRO-ANF - Amphibious Boo Obtaining Program
OPERANTAR - Antarctic Operation	PROANTAR - Brazilian Antarctic Program
ACTO - Organization of the Amazon Cooperation Treaty	PRODE - Fender product
PAC - Creci Acceleration Program miento	Pró-Defensa - Programa de Apoyo al Ense ñanza y la Investigación Científica e Tec nológica en Defensa Nacional
PAED - Articulation and Equipment Plan of defense	PRONAE - Program for Obtaining Airfield Buques
PAEMB - Articulation and Equipment Plan (Brazilian Navy)	PROSUB - Sub Development Program marines
PC - Continental Platform	PROSUPER - Program for Obtaining surface averages
PDB - Development Policy for Biotechnology	PROTECT - Protection of Structures terrestrial strategies
PDP - Productive Development Policy	QC - Complementary Tables
PEB - Brazilian Space Program	QEM - Cuadro de Ingenieros Militares
PECFA - Joint Use Strategic Plans all of Armed Forces	QEMA - Cuadro de Estado Mayor de la Activa
PED - Strategic Defense Product	QM - Marine Corps
PEM - Special Attorney for the Navy	RAM - Revolution in Military Affairs
PEMAER - Fuer's Military Strategic Plan air za	RbAM - Deep Sea Tugboats
PGPE - General Plan of Positions of Power executive	RbFlu - Fluvial tuggers
GDP - Gross Domestic Product	RBJID - Brazilian Representation in June interamerican defense team
PLOA - Proyecto de Ley Presupuestaria Annual	RCO - Recovery of Operative Capacity
PNAE - National Program of Activities Spaces	RDS -Development of the Radio Defined by Software
PND - National Defense Policy	RECOP - Capacity recovery Operative of the Terrestrial Force
PNDH-3 - 3rd National Plan of Human Rights brothers	

- RM** - Military Regions
- ROC** - Joint Operational Requirements
- SAbM** - Navy Supply System
- SAC** - Secretary of Civil Aviation
- SACI** - Satellites for Scientific Applications
- SATEC** - Technological Satellite
- S-BR** - Conventional Submarines
- SC1** - Control sub-headquarters
- SC3** - Sub-subject to Operations
- SC4** - Operational Logistics Sub-subject
- SCAI** - Sub-subject of International Affairs
they
- SCCC** - Common Mate Control System
Nuclear Rials
- SCD** - Data Collection Satellites
- SCIE** - Subjecture of Strategic Intelligence
- SD** - Defense system
- SecCIM** - Secretariat for Internal Control of the
Armada
- SecCTM** - Secretariat of Science and Technology of the
Navy
- SECIRM** - Secretaría de la Comisión Intermini-
ministerial for the Sea Resources
- SEF** - Economy and Finance Secretariat
- SEFA** - Secretariat of Economics and Finances of the Air
Force
- SEN** - Naval Teaching System
- SEORI** - Secretary of Organization Institute
national
- SEPEDS** - Secretariat for Personal, Teaching, Health
and Sports
- SEPROD** - Department of Products of De-
fense
- SG** - Secretary General
- SGEx** - Secretary General of the Army
- SGM** - Secretary General of the Navy
- SIAFI** - Integrated Administration System
Financiera del Gobierno Federal
- SIC** - Citizen Information Service
- SINAMOB** - National Movilización System
- SINDE** - Defense Intelligence System
- SINPDEC** - National Protection System
and Civil Defense
- SIPAM** - Amazon Protection System
- SIPRI** - Stockholm International Peace
Research Institute
- SISBIN** - Brazilian Intelligence System
- SISBRAV** - Brazilian Surveillance System
- SISCEAB** - Space Control System
Brazilian air
- SISCOMIS** - Communications System
Military by Satellite
- SISDABRA** - Air Defense System
Brazilian
- SisDefAAe** - Air Defense Systems
- SisDefNBQRE** - Structure of the Nuclear, Biological,
Chemical, Defense System
Radiológica y Explosivos de la MB
- SISFRON** - Integrated Border Monitoring System
- SisGAAz** - System of Administration of the
Blue Amazon
- SisGE** - Electronic Warfare Systems
- SISLOGD** - Development of the Logis System
tica y Movilización de Defensa
- SisMiCat** - Military Cataloging System
- SISPED** - Strategic Planning System
defense box
- SISTED** - Mili Communications System
safe tasks
- SISTRAM** - Information System on
the Maritime Traffic
- SLI** - Integrated Logistic Support
- SNBR** - Nuclear Propulsion Submarine
Brazilian
- SN-BR** - Nuclear Propulsion Submarines
- SPCE** - Policy and Strategy Sub-heading
- SSTA** - Traffic Safety System
aquatic

STM - Superior Military Court

SUBILOG - Subjecture of Integration
Logistics

SUBMOB - Movilización subjecture

NPT - Nuclear Non-Proliferation Treaty

TO - Theater of Operations

TSE - Superior Electoral Court

UCI - Intendance Cellular Unit

UHM - Medium Size General Purpose Helicopters

UHP - Small Size General Purpose Helicopters

UNAVEM - Military Mission of the UN in An
collar

UNFF - Forum of the United Nations on
forests

UNIFA - University of the Air Force

UPP - Pacifying Police Unit

USP - University of Sao Paulo

UAV - Unmanned Aerial Vehicle

VANT-CFN - Unmanned Air Vehicles for the Body of
Infants in Marina

VANT-Onboard - Air Vehicles
Embarked Unmanned

VBTP - Armored Transport Vehicles
of Staff

VBTP SL - Armored Personnel Transport Vehicles on
Orugas

VBTP SR - Armored Transport Vehicles
te de Personal sobre Ruedas

VCOC - Vice Chief of Operations
joint

VLM-1 - Micro Satellite Launcher Vehicle

VLS - Satellite Launch Vehicle

VtrOp - Operating Vehicles

ZC - Contiguous Zone

ZEE - Exclusive Economic Zone

ZOPACAS - Peace and Cooperation Zone
South Atlantic

INVOLUCED INSTITUTIONS

Ministry of Defense

Ministry of Science, Technology and Innovation

Ministry of Development, Industry and Foreign Trade

Ministry of the Hacienda

Ministry of National Integration

Ministry of Justice

Ministry of planning, assumption and management

Ministry of Foreign Affairs

Secretary of Strategic Affairs of the Presidency of the Republic

Secretary of Human Rights of the Presidency of the Republic

Office of Institutional Security of the Presidency of the Republic

Brazil Navy

Brazilian army

Brazilian Air Force

Fundación Getulio Vargas

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